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Studies Interests Data/People/Things Physical Activities

NATIONAL

Physical Activities Environmental Conditions

OCCUPATIONAL

Interests Data/People/Things Physical

CLASSIFICATION

Career Handbook

1

Canada

Career Handbook

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Career Handbook

Foreword

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CLASSIFICATION STRUCTURE

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THE GROUPS OF THE CAREER HANDBOOK



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A Synopsis of Descriptors and Labels

APTITUDES

One of five levels assigned for each factor, with levels representing normal curve distribution of the labour force:

G General Learning Ability	Q Clerical Perception
V Verbal Ability	K Motor Co-ordination
N Numerical Ability	F Finger Dexterity
S Spatial Perception	M Manual Dexterity
P Form Perception	

INTERESTS

Three of five descriptive factors, assigned in order of predominance and lower case rating indicating weaker representation:

D Directive
I Innovative
M Methodical
O Objective
S Social

DATA/INFORMATION, PEOPLE, THINGS

D – Data/Information

0	Synthesizing
1	Co-ordinating
2	Analyzing
3	Compiling
4	Computing
5	Copying
6	Comparing
7	—
8	Not significant

P – People

0	Mentoring
1	Negotiating
2	Instructing – Consulting
3	Supervising
4	Diverting
5	Persuading
6	Speaking – Signalling
7	Serving – Assisting
8	Not significant

T – Things

0	Setting up
1	Precision working
2	Controlling
3	Driving – Operating
4	Operating – Manipulating
5	Tending
6	Feeding – Offbearing
7	Handling
8	Not significant

PHYSICAL ACTIVITIES

One of several levels assigned for each factor:

Vision

1	Close visual acuity
2	Near vision
3	Near and far vision
4	Total visual field

Hearing

1	Limited
2	Verbal interaction
3	Other sound discrimination

Limb Co-ordination

0	Not relevant
1	Upper limb co-ordination
2	Multiple limb co-ordination

Colour Discrimination

0	Not relevant
1	Relevant

Body Position

1	Sitting
2	Standing and/or walking
3	Sitting, standing, walking
4	Other body positions

Strength

1	Limited
2	Light
3	Medium
4	Heavy

ENVIRONMENTAL CONDITIONS

Location

L1	Regulated inside climate
L2	Unregulated inside climate
L3	Outside
L4	In a vehicle or cab

Hazards

H1	Dangerous chemical substances
H2	Biological agents
H3	Equipment, machinery, tools
H4	Electricity
H5	Radiation
H6	Flying particles, falling objects
H7	Fire, steam, hot surfaces
H8	Dangerous locations

Discomforts

D1	Noise
D2	Vibration
D3	Odours
D4	Non-toxic dusts
D5	Wetness

EMPLOYMENT REQUIREMENTS

Education/Training Indicators

1	No formal education or training requirements	5	Apprenticeship, specialized training, vocational school training	+	Indicating an additional requirement beyond education/training (e.g., extensive experience, demonstrated or creative ability, appointments, etc.)
2	Some high school education and/or on-the-job training or experience	6	College, technical school (certificate, diploma)		
3	Completion of high school	7	Undergraduate degree	R	Some regulated requirement(s) exist for this group
4	Completion of course work, training, workshops and/or experience related to occupation	8	Post-graduate or professional degree		

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Introduction

The *National Occupational Classification* and the *Career Handbook*

Career and employment counsellors are aware of the substantial changes in the labour market over the last decade which are the result of complex, global influences. The present labour market is in transition and characterized by rapid change. Workers now need to adapt continually to changing career demands as some skills become obsolete and new ones are required. Lifelong learning has become an essential component of work as individuals train and retrain to accommodate these skill shifts.

The *National Occupational Classification* (NOC), published in 1993, was designed to address the effects of these pervasive changes in occupations and work. The NOC is the product of systematic, field-based research by the former Occupational and Career Information Branch of Human Resources Development Canada. Its content and organization reflect the recent changes in the labour market and, along with its counselling component, the *Career Handbook*, provide information about occupations in Canada. A more detailed description of the development of the NOC classification system and its structure is contained in the NOC's Introduction.

Counsellors should understand the difference between the definitions of an "occupation" and a "job" when using the NOC and the *Career Handbook*. An occupation is a theoretical concept which includes specific types of skills and responsibilities held in common by those who work in an occupation. A "job," on the other hand, is defined as a specific position in a particular establishment.

An occupation is a collection of jobs. The NOC list of examples of job titles within each Unit Group provides a frame of reference for the boundaries of that occupational group. The jobs within the group are characterized by a homeogeneity or similarity of skills.

To make sense of current trends in the labour market, it is important to focus on occupations rather than jobs, and on skills rather than the specific tasks of individual jobs. Identifying the essential similarities of skills within an occupation allows users to examine concepts such as occupational mobility, transferability of skills and career shifts in today's labour market.

To provide a complete representation of work in the Canadian economy, the NOC classifies occupations in Major Groups according to two key dimensions of skills—skill type and skill level. The Major Groups, which are identified by two-digit numbers, are then broken down further into Minor Groups with three-digit numbers and Unit Groups with four-digit numbers. Within these three levels of classification, a Unit Group provides the actual profile of an occupation.

There are 522 Unit Groups in the NOC. The structure of the *Career Handbook* is identical to that of the NOC with one modification. In many cases, the NOC Unit Group has subgroup descriptions of Main Duties. To help users more easily identify the differences between subgroups, the *Career Handbook* provides a unique occupational profile for each subgroup and identifies it with a digit after a decimal point. For example, NOC 5121 Writers has three subgroups in its Main Duties section—Creative Writers, Technical Writers and Copywriters. In the *Career Handbook*, each of these subgroups has its own occupational profile—5121.1 Creative Writers, 5121.2 Technical Writers and 5121.3 Copywriters. As a result, the Handbook contains 897 distinct groups derived from the original 522 in the NOC.

For the purposes of this Introduction, each occupational group in the *Career Handbook*, whether an original NOC Unit Group or subgroup, is referred to as a Group.

Purpose of the *Career Handbook*

Finding understandable information about the entire world of work and how it is organized can be difficult. The purpose of the *Career Handbook* is to provide useful, reliable and accessible information about occupations to counsellors and their clients.

The *Career Handbook* has been developed by occupational researchers, analysts and trained raters. The ratings assigned to each Group are global and describe the occupation with respect to skills and other variables to provide important indicators for career exploration. The Handbook will help counsellors and their clients investigate occupations and make informed career decisions.

The *Career Handbook* is intended only for career counselling and exploration purposes. Human Resources Development Canada neither condones nor recommends the use of its information for other purposes. The data presented here are *not appropriate* for other uses such as screening applicants for particular positions and determining insurance benefits. The data *do not* replace the use of criterion-referenced testing to establish performance requirements for work as it occurs in the labour market. There are three major reasons for this limitation:

- The conceptual foundation of the NOC and the Handbook is occupations, not jobs. An occupation is a collection of jobs that share some or all of a set of Main Duties. The tasks of specific jobs vary from establishment to establishment.

- The rated information in the Handbook is not based on experimental data collected from representative samples of the employed labour force for the occupations of the NOC.
- Development of the NOC and the Handbook did not include the collection of data on specific working conditions for jobs contained within occupational groups of the NOC.

A Guide to Using the *Career Handbook* Groups

Each Group is presented in the form of an occupational profile that provides a holistic picture of the occupation with certain elements emphasized for counsellor interpretation. Each Group is displayed on two pages with standardized sections.

The sample Group in this Introduction, 2212.1 Geological and Mineral Technologists, is representative of the treatment of all the Groups in the Handbook. The following guide explains each section consecutively beginning with the code at the top of the left-hand page and ending with the final information on the right-hand page.

A Guide to Using the Career Handbook Groups

Examples of Job Titles

The NOC and the *Career Handbook* do not provide an exhaustive list of job titles. The list provided in the Group indicates the most commonly occurring titles in an occupation across the country. This list also presents a conceptual boundary around an occupation by identifying the range of job titles contained within a Group.

Occupation Code, Title and Introductory Statement

The **occupation code** appears at the top of both pages of an entry. It is either identical to the four-digit NOC Unit Group code, or it has a digit added after a decimal identifying it as a subgroup of the original NOC Unit Group.

The **title** of the Group follows the code on the first page. The titles are either those of the original NOC Unit Group or are derived from the Main Duties subgroup descriptions.

The **introductory statement**, which provides a general overview of the occupation, is taken from the lead statement of the NOC Unit Group. When there are subgroups, this same pattern is followed.

2212.1 Geological and Mineral Technologists

Geological and Mineral Technologists may work independently or provide technical support and services in the fields of oil and gas exploration and production, geophysics, petroleum engineering, geology, mining and mining engineering, mineralogy, extractive and physical metallurgy and metallurgical engineering.

Profile Summary

APPTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	2	2	2	3	3	3	3
INTERESTS								
Old								
DATA PEOPLE THINGS (DPT)								
231								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
3	1	2	3	1	2			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L3, H1, H2, D3								
EDUCATION/TRAINING								
6, R								

Examples of Job Titles

Assayer
Geophysical Technologist
Groundwater Technologist
Marine Geoscience Technologist
Metallurgical Technologist
Mining Engineering Technologist
Mining Technologist
Petroleum Engineering Technologist
Welding Technologist

Profile Summary

This section identifies all the ratings in an abbreviated alphanumeric format, providing a quick overview for counsellors of the nature of the occupation.

A Synopsis of Descriptors and Labels as well as Descriptor Definitions provide detailed information on the ratings, their labels and levels. These sections are located at the end of this Introduction.

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to conduct or direct geological, geophysical, hydrographic and oceanographic and prospecting surveys, and exploratory drilling, well-logging and underground mine survey programs; may conduct or supervise studies and programs related to mine development, mining methods and mine ventilation, lighting, drainage and ground control

- Verbal and numerical ability to prepare reports, and to prepare, transcribe and analyze seismic, geometric, well-log and other geophysical and survey data
- Spatial and form perception to prepare notes, sketches, geological maps and cross sections; may develop specifications for heat treatment of metals and welding; may also design welding fixtures and troubleshoot welding processes and quality problems
- Objective Interest in precision working to operate and maintain geophysical survey and well-logging instruments and equipment; to prepare rock, mineral and metal samples; and to perform physical and chemical tests

- Innovative Interest in analyzing geophysical and survey data to assist engineers and geologists in the evaluation and analysis of petroleum and mineral reservoirs; may assist engineers and metallurgists in specifying material selection, metal treatments and corrosion protection systems; may also assist hydrogeologists in evaluating ground water
- Directive Interest in supervising oil- and gas-well drilling, well completions and work-overs, welding projects, and research and survey activities of technicians and tradespersons

Descriptor Profile

Main Characteristics: Aptitudes, Interests and Worker Functions

The Descriptor Profile provides, in narrative form, the Main Characteristics of an occupation by describing its prominent aptitudinal, interest and Worker Functions (DPT) elements.

The Descriptor Profile highlights the **aptitudes** most relevant in the performance of the work. They are based on the same theoretical principles and use the same level configuration as that of the *Canadian Classification and Dictionary of Occupations*

(CCDO), Volume 2. Aptitude ratings are further discussed in the Descriptor Definitions and Rating Methodology sections.

The **Interests** for the occupation are described in order of predominance. They are also highlighted, along with Worker Functions (**Data People Things - DPT**) as further qualifiers, to describe the interactions that a worker in this occupation will have with data/information, people and things. Interests are based on the Canadian Work

Preference Inventory (CWPI), and DPT is adopted from the scales used in the CCDO, Volume 2.

This interpretive narrative is based on the NOC's Unit Group Main Duties section as well as the assigned ratings for the above-mentioned scales. For some Groups, especially those derived from original NOC subgroups with little information, the CCDO was used to provide some narrative content. This information is generally from CCDO, Volume 2, which identifies skills rather than specific job tasks.

Physical Activities and Environmental Conditions

The Physical Activities and Environmental Conditions sections follow the Main Characteristics. Refer to the Remarks section for an explanation of asterisks (*) used in both these sections.

Since there is no direct link between the ratings in these sections and the content presented in the NOC's Main Duties, it was not possible to incorporate them into the narrative. However, they are an integral part of the Descriptor Profile for the occupation and provide important information for counsellor use.

The ratings for Physical Activities factors in an occupational profile do not indicate that persons with disabilities can or cannot perform the duties of that occupation. However, counsellors of clients with disabilities may find the information useful in terms of considering workplace accommodations that would enhance their clients' employability.

Similar Occupations Classified Elsewhere

This section is taken from the NOC and identifies occupations which are similar to, and may be confused with, the Group. These similar occupations are referenced with NOC Unit Group codes. In some instances, the information refers to individual titles or actual Unit Groups.

Remarks

The Remarks section has two types of information. It provides free-standing comments and/or information about Physical Activities and Environmental Conditions ratings that appear with an asterisk (*).

Free-standing comments, which precede other information, provide general information and often relate to specializations for an occupation. Some comments provide information on the Statistics Canada coding for occupations that may be aggregated. More details on Statistics Canada coding are available in the NOC's Introduction.

An asterisk for a Physical Activity rating will appear after that rating. There are no asterisks under Physical Activities in the sample Group—2212.1 Geological and Mineral Technologists. However, if an asterisk appeared beside Strength 2 Light, it would affect the meaning of the rating. At present, Strength 2 Light indicates that Strength for the occupational group as a whole is 2, which has the label Light. The presence of an asterisk would indicate that some jobs within the group may have a rating of 3, which is labelled Medium. In general, an asterisk for Physical Activities indicates a level up for the rating. When an asterisk appears, its explanation is provided in the Remarks section.

For Environmental Conditions, an asterisk indicates that the potential hazard in a Group is limited to some jobs, not the occupation as a whole. For example, in 2212.1 Geological and Mineral Technologists, the asterisk in H8* Dangerous locations indicates that this is a potential hazard for some but not all jobs within the Group. The Remarks section explains any asterisks that appear for Environmental Conditions, as demonstrated in the sample Group.

Occupational Options

For most occupations there is some form of mobility such as transferability, lateral mobility, upward progression and specialization. Although these kinds of mobility are different, their presence indicates that there are skills or competencies that can be adapted from one occupation and applied to another. This section identifies the possibility for worker mobility within the Group or the potential to move to other occupations.

Note to Users: The sections entitled Occupational Options, Similar Occupations Classified Elsewhere and Remarks will not appear on the layout of a Group when there is no information to report in these sections.

2212.1 Subgroup 1 of 2	
Physical Activities	<ul style="list-style-type: none">Geophysics technologists usually require completion of a two-to-three year college program in electronics technology.Certification in geological and mineral technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers.In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.A period of supervised work experience, usually two years, is required before certification.
Environmental Conditions	Workplaces/Employers Consulting geology and engineering firms Educational institutions Governments Manufacturing, construction and utility companies Petroleum and mining companies
Employment Requirements Education/Training 6, R	Occupational Options There is limited mobility among occupations in this group. Mobility may be possible between geophysical technology and electronic technology. Mobility may be possible between some occupations in this group and related fields of civil engineering technology.

Employment Requirements

In this section, the employment requirements from the NOC Unit Group are assigned indicators to provide a numerical reference for counsellors. The Education/Training Indicators identify a hierarchical order for types of education and training, and may also incorporate two other criteria represented by "+" and "R." These symbols indicate that requirements other than education and training are relevant for the occupation.

Workplaces/Employers

In this section, the *Career Handbook* takes the information from the lead statement of the NOC Unit Group, which is in a narrative format, and condenses it into a phrase or list. The information is not exhaustive but identifies the most common work settings for the occupation.

Rating Methodology

The ratings in the *Career Handbook* were assigned by trained occupational analysts using a modified Delphi procedure. The goal of Delphi methodologies is to establish group consensus about unknown quantities or events. Ratings were based primarily on the Main Duties for each NOC Unit Group, but consideration was also given to the applicability of particular ratings to each job title listed as an example.

Statements in the Main Duties indicating that a Unit Group “may” undertake a specific duty or task were considered as less significant in assigning the rating, since this duty or task would apply only to some workers in the Group.

After all Unit Groups had been rated, they were reorganized by ratings. For example, raters were presented with all Unit Groups coded as Location L1 (Inside regulated climate) or Vision 1 (Close visual acuity). Reorganization of the Unit Groups in this manner allowed for the identification of anomalous ratings and appropriate recoding.

The ratings on the Descriptor Scales address the criterion of skills for each occupation that the NOC uses in its classification system. In addition, this information provides some continuity with that in the CCDO. The Aptitude and Worker Functions ratings were based on the compilation of seven-digit CCDO groups within NOC Unit Groups. The ratings assigned to Groups reflect the most frequently occurring levels for Aptitudes and Worker Functions for the CCDO compilations. These ratings were then subjected to the consensus procedure to accommodate, primarily, changes in technology in the workplace and the NOC’s occupational structure.

The Physical Activities and Environmental scales are revised scales that provide optimum information for the occupational emphasis of the NOC but maintain links to the scales used previously. These scales also provide a greater degree of delineation and specificity than the former scales.

The Interests and Education/Training indicators represent new directions that diverge from the CCDO and reflect different theoretical principles. The CWPI is an interest inventory that bases ratings on activities performed in an occupation and the predominance of these activities carried out by those performing the work. It does not propose a personality theory as the basis of ratings.

Education/Training indicators reflect different types of education, training or combinations of these streams rather than the amount of time spent in training programs, because the duration of training cannot be standardized. Flexibility of programming is also a major issue confronting education and training providers attempting to accommodate the needs of their clients. The *Career Handbook* assigns the range of possible indicators that are relevant for an occupational group, thereby identifying the various sources of supply for occupations.

Looking for Occupations in the *Career Handbook*

Users who would like access to a particular occupation by title in the *Career Handbook* should refer to the *National Occupational Classification: Index of Titles* (1993), which was published as a separate volume. It provides an alphabetical list of occupations by title. All job titles in the *Career Handbook* are also found in the *Index of Titles* at the four-digit level.

Transition from the CCDO to the NOC

Users who want to compare a CCDO seven-digit occupation to the NOC Unit Groups should refer to the *National Occupational Classification: Conversion Tables* (1993). The CCDO; Volume 2, provided rated profiles (narrative included) at the four-digit level for approximately 400 Unit Groups and some ratings (no narratives) at the seven-digit level. However, with emphasis shifting from tasks to skills in the current labour market, it is now necessary to focus on skills for counselling purposes. The *Career Handbook* covers 897 occupational groups in a consistent format and is compatible with the NOC. The NOC is the national standard and replaced the CCDO as an implemented system in 1993.

For Additional Information

For additional information about the *Career Handbook*, please contact:

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A Synopsis of Descriptors and Labels

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8	Not significant

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1	Negotiating
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5	Persuading
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7	Serving – Assisting
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1	Precision working
2	Controlling
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Colour Discrimination

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1	Relevant

Body Position

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2	Standing and/or walking
3	Sitting, standing, walking
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4	Heavy

ENVIRONMENTAL CONDITIONS

Location

L1	Regulated inside climate
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L3	Outside
L4	In a vehicle or cab

Hazards

H1	Dangerous chemical substances
H2	Biological agents
H3	Equipment, machinery, tools
H4	Electricity
H5	Radiation
H6	Flying particles, falling objects
H7	Fire, steam, hot surfaces
H8	Dangerous locations

Discomforts

D1	Noise
D2	Vibration
D3	Odours
D4	Non-toxic dusts
D5	Wetness

EMPLOYMENT REQUIREMENTS

Education/Training Indicators

1	No formal education or training requirements	5	Apprenticeship, specialized training, vocational school training	+	Indicating an additional requirement beyond education/training (e.g., extensive experience, demonstrated or creative ability, appointments, etc.)
2	Some high school education and/or on-the-job training or experience	6	College, technical school (certificate, diploma)		
3	Completion of high school	7	Undergraduate degree	R	Some regulated requirement(s) exist for this group
4	Completion of course work, training, workshops and/or experience related to occupation	8	Post-graduate or professional degree		

Descriptor Definitions

APTITUDES

An individual's **overall capacity** to learn the skills needed to perform job duties is based on his or her **specific aptitudes** for acquiring information and transforming it into action.

To describe aptitudes, the *Career Handbook* uses the following scale based on the normal curve representing the Canadian labour force. For example, 1 indicates the level of aptitude that applies to the top 10 percent of the working population.

- 1 The highest 10 percent of the working population
- 2 The upper third, exclusive of the highest 10 percent
- 3 The middle third of the working population
- 4 The lowest third, exclusive of the lowest 10 percent
- 5 The lowest 10 percent of the working population

Nine aptitude factors are rated according to the above scale to provide the aptitudinal profile needed to perform the work of an occupation.

G General Learning Ability

Ability to "catch on" or understand instructions and underlying principles; to reason and make judgments.

V Verbal Ability

Ability to understand the meaning of words and the ideas associated with them, and to use them effectively; to comprehend language, to understand relationships between words and to understand the meaning of whole sentences and paragraphs; to present information or ideas clearly.

N Numerical Ability

Ability to carry out arithmetical processes quickly and accurately.

S Spatial Perception

Ability to think visually about geometric forms and comprehend the two-dimensional representation of three-dimensional objects; to recognize the relationships resulting from the movement of objects in space. May be used in such tasks as blueprint reading and in solving geometry problems. Frequently described as the ability to "visualize" objects of two or three dimensions.

P Form Perception

Ability to perceive pertinent detail in objects and in pictorial and graphic material; to make visual comparisons and discriminations and to see slight differences in shapes and shadings of figures and widths and lengths of lines.

Q Clerical Perception

Ability to perceive pertinent detail in verbal or tabular material; to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetical computation.

K Motor Co-ordination

Ability to co-ordinate eyes, hands and fingers rapidly and accurately when required to respond with precise movements.

F Finger Dexterity

Ability to move the fingers and manipulate small objects with the fingers rapidly and/or accurately.

M Manual Dexterity

Ability to move the hands easily and skillfully; to work with the hands in placing and turning motions.

THE CANADIAN WORK PREFERENCE INVENTORY

The Canadian Work Preference Inventory (CWPI) measures five interests:

DIRECTIVE

Directive persons like to take charge and control situations. They like to take responsibility for projects that require planning, decision making and co-ordinating the work of others. They are able to give directions and instructions easily. They enjoy organizing their own activities. They see themselves as independent and self-directing.

INNOVATIVE

Innovative persons like to explore things in depth and arrive at solutions to problems by experimenting. They are interested in initiating and creating different ways to solve questions and present information. They enjoy scientific subjects. Innovative persons prefer to be challenged with new and unexpected experiences. They adjust to change easily.

METHODICAL

Methodical persons like to have clear rules and organized methods to guide their activities. They prefer working under the direction or supervision of others according to given instructions, or to be guided by established policies and procedures. Methodical persons like to work on one thing until it is completed. They enjoy following a set routine and prefer work that is free from the unexpected.

OBJECTIVE

Objective persons enjoy working with tools, equipment, instruments and machinery. They like to repair and/or fabricate things from various materials according to specifications and using established techniques. Objective persons are interested in finding out how things operate and how they are built.

SOCIAL

Social persons like dealing with people. They enjoy caring for and assisting others in identifying their needs and solving their concerns. Social persons like working and co-operating with others. They prefer to be involved in work that requires interpersonal contact.

DATA/INFORMATION, PEOPLE, THINGS

D - Data/Information

- 0 Synthesizing
- 1 Co-ordinating
- 2 Analyzing
- 3 Compiling
- 4 Computing
- 5 Copying
- 6 Comparing
- 7 —
- 8 Not significant

P - People

- 0 Mentoring
- 1 Negotiating
- 2 Instructing – Consulting
- 3 Supervising
- 4 Diverting
- 5 Persuading
- 6 Speaking – Signalling
- 7 Serving – Assisting
- 8 Not significant

T - Things

- 0 Setting up
 - 1 Precision working
 - 2 Controlling
 - 3 Driving – Operating
 - 4 Operating – Manipulating
 - 5 Tending
 - 6 Feeding – Offbearing
 - 7 Handling
 - 8 Not significant
-

D - Data/Information

Non-tangible information, knowledge and concepts related to data, people and things that are obtained by observation, investigation, visualization and mental creation. Written data take the form of numbers, words and symbols. Other data are ideas, conceptualization and oral verbalization.

- 0 **Synthesizing**—Integrating analyses of data to discover facts and/or develop knowledge, concepts and interpretations.
- 1 **Co-ordinating**—Determining time, place and sequence of operations or actions to be taken based on analysis of data; executing determinations and/or reporting events.
- 2 **Analyzing**—Examining and evaluating data; frequently presenting alternative action in relation to the evaluation.
- 3 **Compiling**—Accumulating information usually recorded physically but which may be stored mentally; gathering, collating and classifying information about data, people and things; frequently reporting and/or carrying out a prescribed action in relation to the information.
- 4 **Computing**—Performing arithmetical operations and reporting on, and/or carrying out, prescribed action in relation to them; does not include counting.
- 5 **Copying**—Carrying out a set of procedural/operational functions or processes based on an understanding of instructions or information necessary to perform the work.*
- 6 **Comparing**—Understanding the readily observable functional, structural or compositional characteristics (whether similar to, or divergent from, obvious standards) of data, people and things.
- 7 The functional digit 7 is not used in the Data column.
- 8 **Not significant**

* Change from CCDO, Volume 2—the definition for Level 5 of Data was revised to provide a clearer distinction between the *Copying* and *Comparing* functions.

P - People

Human beings; also includes animals dealt with on an individual basis.

- 0 **Mentoring**—Dealing with individuals in terms of their total personalities in order to advise, counsel and/or guide them with regard to problems that may be resolved by legal, scientific, clinical, spiritual and/or other professional principles.
- 1 **Negotiating**—Exchanging ideas, information and opinions with others to arrive jointly at decisions, conclusions or solutions; often collaborating with others to formulate policies and programs.
- 2 **Instructing – Consulting**—Teaching subject matter to others, giving advice or training others (including animals) through explanation, demonstration and supervised practice; making recommendations on the basis of subject matter expertise.*
- 3 **Supervising**—Determining or interpreting work procedures for a group of workers, assigning specific duties to them, maintaining harmonious relations and promoting efficiency.
- 4 **Diverting**—Providing entertainment in one or more forms.
- 5 **Persuading**—Influencing others in favour of a product, service or point of view.
- 6 **Speaking – Signalling**—Talking with and/or signalling people to convey or exchange information; giving assignments and/or directions to helpers.
- 7 **Serving – Assisting**—Attending to the needs and requests of people or animals or the expressed and implicit wishes of people; helping and supporting other workers in the performance of tasks.**
- 8 **Not significant**

* Change from CCDO, Volume 2—the label *Consulting* was added to People Level 2 to reflect the shift in Canada from an industry- to knowledge-based economy in which consulting has become a prevalent activity.

** Change from CCDO, Volume 2—the label *Assisting* was added to People Level 7 to reflect the increase in occupations that provide support functions.

T - Things

Tangible, inanimate objects, substances and materials; machines, tools and equipment; products.

- 0 **Setting up**—Adjusting machines or equipment by replacing or altering tools, jigs, fixtures and attachments to prepare them for operation, change performance or restore proper functioning if they break down.
- 1 **Precision working**—Using the body and/or tools or work aids to work, move, guide and place objects or materials in order to attain specified standards. Selection of appropriate tools, objects or materials and the adjustment of the tool to the task require considerable judgment.
- 2 **Controlling**—Starting, stopping, controlling and adjusting machines and equipment designed to fabricate and/or process objects or materials. Operating machines involves minimal set-up and adjustment of the machine or material as the work progresses. Controlling equipment involves observing gauges, dials and other indicators, and turning valves and other devices to control factors such as temperature, pressure, flow of liquids, speed of pumps and reactions of materials.
- 3 **Driving – Operating**—Starting, stopping and controlling machines and equipment that must be steered or guided in order to fabricate, process and/or move things or people. Involves activities such as observing gauges and dials, estimating distances and determining speed and direction of other objects, turning cranks and wheels, pushing clutches or brakes, and pushing or pulling gear shifts or levers. Includes such machines as cranes, conveyor systems, tractors, furnace-charging machines, paving machines and hoisting machines. Excludes manually powered machines such as hand trucks and dollies and power-assisted machines such as electric wheelbarrows and hand trucks.
- 4 **Operating – Manipulating**—Using the body, tools or special devices to operate equipment or move, guide and place objects or materials. Requires a significant combination of motor co-ordination and manual and finger dexterity. Involves some latitude for judgment with regard to precision and selection of appropriate tool, object or material.
- 5 **Tending**—Starting, stopping and observing machines and equipment; adjusting materials or controls of the machine such as changing guides, adjusting timers and temperature gauges, turning valves to allow flow of materials and flipping switches in response to lights. Minimal judgment is involved in making these adjustments.
- 6 **Feeding – Offbearing**—Inserting, throwing, dumping or placing materials in or removing them from machines or equipment that are automatic or operated by other workers.
- 7 **Handling**—Using the body, hand tools and/or special devices to work, move or carry objects or materials. The attainment of standards or the selection of appropriate tool, object or material is not significant.
- 8 **Not significant**

PHYSICAL ACTIVITIES

For an occupational group that has an asterisk (*) in the Physical Activities ratings, refer to the Remarks section of that group for an explanation.

VISION

The use of sight in the work performed. The scale is organized in terms of the visual field involved in the performance of the work.

1 Close visual acuity

Some or all work activities are performed close to the worker. The scope of the visual field is confined and requires close attention to detail.

Occupations where one or more of the Main Duties require close visual acuity are coded at this level. Other Main Duties in the Unit Group may involve other types of vision—for example, **Near and far vision (3)** or **Total visual field (4)**.

Examples:

- assembling micro-circuit boards
- machining to close tolerances
- cutting gems
- performing surgical procedures

2 Near vision

Work activities are performed near the worker. The scope of the visual field is broader than in **Close visual acuity (1)**.

Examples:

- reading and interpreting drawings and specifications
- using computer keyboards
- repairing automobile engines
- setting up and operating machine tools
- interviewing clients

3 Near and far vision

Some work activities involve the monitoring of processes, objects or situations in the work environment that are far from the worker. Other work activities involve **Near vision (2)**.

Examples:

- operating movie projectors
- loading/unloading materials by hand or equipment
- installing shingles/tiles on roofs
- conducting surveys to establish legal property boundaries
- developing trading strategies by monitoring market conditions from the exchange floor

4 Total visual field

Work activities involve the whole field of vision—**Near and far vision (3)**—as well as depth perception and peripheral vision.

Examples:

- driving vehicles
- refereeing sports events
- fighting fires
- dancing in ballets

COLOUR DISCRIMINATION

0 Not relevant

Colour discrimination is not relevant in the performance of the work.

Examples:

- cleaning windows
- providing information over the telephone
- interviewing, hiring and overseeing staff training
- translating documents

1 Relevant

Colour discrimination is relevant in the performance of the work.

Examples:

- observing signals while operating vehicles
- installing, testing and repairing electrical wiring
- restoring and conserving museum and art gallery artifacts
- designing, constructing and repairing dentures

HEARING

Use of hearing in the work performed. The levels of this scale are organized in terms of the type of auditory discrimination involved in the performance of the work.

1 Limited

Hearing is limited to short and/or infrequent verbal interactions in order to perform the work.

Examples:

- typing and proofreading correspondence
- cutting and trimming meat, poultry and fish according to customers' orders
- carrying linen to and from laundry areas and running errands
- assisting mine workers in constructing underground installations

2 Verbal interaction

Work activities involve communication with colleagues, clients and/or the public on a regular basis.

Examples:

- operating directory listing systems to provide directory assistance to customers
- resolving work problems and recommending measures to improve productivity
- consulting with families of the deceased regarding funeral services
- analyzing and providing advice on managerial methods and organization of establishments

3 Other sound discrimination

Work activities involve the identification, assessment and/or production of sound.

Verbal interaction (2) is included in this level.

Examples:

- leading bands, orchestras and choirs during musical rehearsals and performances
- administering audiometric tests to diagnose the degree of hearing impairment
- testing automotive systems and components using testing devices to isolate faults
- commanding fishing vessels by operating navigational instruments

BODY POSITION

Primary type of posture or body movement involved in performing the work. These postures or body movements range from simple to complex and from sedentary to mobile.

1 **Sitting**

Work activities primarily involve sitting. **Standing and/or walking (2)** may occur but is incidental to the work being performed.

Examples:

- reading and editing copy to be published or broadcast
- preparing financial statements
- issuing aircraft take-off and landing instructions to pilots

2 **Standing and/or walking**

Work activities primarily involve standing or walking.

Examples:

- cutting and styling hair
- dispensing prescribed medications to customers
- preparing and cooking meals
- delivering mail

3 **Sitting, standing, walking**

This scale involves work activities in combinations and varying degrees of **Sitting (1)** and **Standing and/or walking (2)**.

Examples:

- teaching students using methods such as lectures, discussions, audio-visual presentations and field studies
- assessing land values for taxation purposes
- ensuring that systems and equipment are operating efficiently on job sites
- supervising, co-ordinating and scheduling the activities of workers who cut or stitch fabric, fur or leather garments

4 **Other body positions**

Work activities involve body postures other than, or in addition to, **Sitting (1)** and **Standing and/or walking (2)** such as bending, stooping, kneeling and crouching.

Examples:

- performing labouring duties in warehouses
- measuring, cutting and installing carpeting
- adjusting, repairing or replacing parts and components of automotive systems
- treating patients' disorders of the spine and body through corrective manipulation

LIMB CO-ORDINATION

Use of limbs in performing work.

0 **Not relevant**

Work activities do not involve co-ordination of limbs.

Examples:

- counselling clients and providing therapy
- proofreading materials before publication
- greeting patrons at entrances to restaurant dining rooms

1 Upper limb co-ordination

Work activities involve co-ordination of upper limbs.

Examples:

- keyboarding
- performing maintenance services such as oil changes, lubrications and tune-ups
- operating video cameras
- instructing students in sign language

2 Multiple limb co-ordination

Work activities are carried out by co-ordinating the movements of upper limb(s) simultaneously with lower limb(s).

Examples:

- digging ditches using shovels
- operating and driving automobiles, vans and trucks
- climbing and working aloft on poles, ladders or other support structures

STRENGTH

Use of strength in the handling of loads such as pulling, pushing, lifting and/or moving objects during the work performed.

1 Limited

Work activities involve handling loads up to 5 kg.

Examples:

- examining and analyzing financial information
- selling insurance to clients
- conducting economic and technical feasibility studies

2 Light

Work activities involve handling loads of 5 kg but less than 10 kg.

Examples:

- repairing soles, heels and other parts of footwear
- filing materials in drawers, cabinets and storage boxes
- preparing and cooking meals

3 Medium

Work activities involve handling loads between 10 kg and 20 kg.

Examples:

- setting up and operating finishing machines or finishing furniture by hand
- measuring, cutting and applying wallpaper to walls
- adjusting, replacing or repairing mechanical or electrical components using hand tools and equipment

4 Heavy

Work activities involve handling loads more than 20 kg.

Examples:

- operating and maintaining deck equipment and performing other deck duties aboard ships
- shovelling cement and other materials into cement mixers and performing other activities to assist in the maintenance and repair of roads
- measuring, cutting and fitting drywall sheets for installation on walls and ceilings

ENVIRONMENTAL CONDITIONS

For an occupational group that has an asterisk (*) in the Environmental Conditions ratings, refer to the Remarks section of that group for an explanation.

LOCATION

The work performed is carried out indoors in a regulated environment, indoors in an unregulated environment, outdoors or in a vehicle. In many occupations, the Main Duties may be performed in more than one location. Therefore, a group may have more than one Location code, for example:

- firefighting and fire prevention duties
- maintenance of interior/exterior of buildings
- managing operations and paperwork of farms

L1 Regulated inside climate

A normal controlled environment such as an office, hospital or school.

L2 Unregulated inside climate

An inside work environment where the temperature or humidity may be considerably different from normal room conditions. In some groups, the nature of the duties affects the temperature or humidity of the work environment.

Examples:

- extracting coal/ore from underground mines
- operating machines that press or blow molten glass
- unloading stock into cold storage freezers

L3 Outside

An outdoor work environment where the worker is exposed to variations in weather conditions and seasonal weather patterns.

Examples:

- maintaining lawns
- repairing buildings, roads, bridges and dams
- operating power saws to thin and space trees
- delivering mail

L4 In a vehicle or cab

An interior space in any form of vehicle or in the cab of heavy equipment operated by the worker.

Examples:

- driving buses
- operating cranes
- providing service to passengers during flights

HAZARDS

Potential hazards to which the worker may be exposed. The codes provide an indication of the type(s) of hazard(s) most likely to be present in the workplace environment. They are not a measure of frequency, duration or degree of exposure to hazards, but an indication of the presence or absence of a particular hazard in the work environment.

H1 Dangerous chemical substances

Exposure to any chemical that may endanger health through inhalation, absorption or ingestion, contact with skin or eyes, or any chemical with the potential for fire or explosion. Substances may be in forms such as solids, liquids, gases, aerosols or particles.

Examples:

- extracting coal (involves exposure to silica particles)
- removing asbestos insulation from buildings
- joining bricks with mortar (contains lime)
- mixing pesticides to spray crops
- painting building interiors

H2 Biological agents

Exposure to infectious bacteria and viruses as a result of indirect contact with, or direct handling of, infectious materials or micro-organisms that may cause illness.

Examples:

- treating sick animals
- performing autopsies
- providing nursing care
- investigating outbreaks of food and environment-related diseases and poisonings
- conducting microbiological tests and laboratory analyses

H3 Equipment, machinery, tools

Working near or with equipment, instruments, machinery or power/hand tools that may be a potential source of accident or injury.

Examples:

- operating metal machining tools to shape metal
- using power tools to shape metal
- using hand tools to fabricate wood products
- operating power saws to thin trees
- performing surgical procedures

H4 Electricity

Exposure to electrical circuitry, high tension wires, transformers or other equipment that may be a potential source of electrical shock.

Examples:

- installing or repairing electrical wiring, motors and generators
- maintaining underground power transmission and distribution systems
- operating semi-automatic electric arc welding equipment

H5 Radiation

Exposure to ionizing radiation such as X-rays and radioactive substances or non-ionizing radiation such as radio frequencies and infrared, ultraviolet or visible light that may affect health adversely.

Examples:

- taking dental X-rays
- preparing and administering radioactive drugs
- operating welding equipment (ultraviolet)
- controlling the flow of air traffic using radar monitors, radio and other equipment (radio frequencies)
- conducting atmospheric research (visible laser light)
- creating glass objects (infrared)

H6 Flying particles, falling objects

Exposure to flying particles and falling objects in the work environment that pose the risk of bodily injury. **Flying particles** refer to particles such as wood chips, metal particles and rock chips generated by the handling, crushing, grinding, rapid impact or explosion of materials.

Examples:

- operating machining tools such as lathes/grinders
- maintaining or constructing underground installations in mines using power/hand tools
- operating chainsaws to fell, delimb and buck trees
- transferring cargo to or from ships
- laying brick to construct or repair walls

H7 Fire, steam, hot surfaces

Exposure to fire (rather than exposure to flammable substances that may ignite), to emissions of steam or to intensely hot surfaces that are potential sources of injury.

Examples:

- fighting fires
- operating gas flame welding equipment
- cooking food
- forging metal items by hand or with forging machinery
- tending industrial ovens/furnaces

H8 Dangerous locations

Working in locations that are inherently treacherous and are potential sources of injury. Such work locations include construction sites, underground sites, erected support structures and marine environments.

Examples:

- building underground passageways in mines
- installing roof shingles
- washing exterior windows of buildings
- commanding fishing vessels
- operating underwater video, sonar, recording and related equipment

DISCOMFORTS

Work conditions that create disturbances but are not hazardous. In general, these conditions create discomfort, but are not direct sources of injury. In extreme instances, however, these conditions might cause injury.

D1 Noise

Work that produces sufficient noise—constant or intermittent—to cause marked distraction or possible loss of hearing.

Examples:

- operating drilling equipment in underground mines
- using power saws in logging operations
- blasting rock surfaces in mining
- operating heavy equipment for construction jobs
- using firearms

D2 Vibration

Work that produces an oscillating or quivering motion of the body.

Examples:

- operating jackhammers to break up pavement
- driving tractors
- operating drills to produce blasting holes in mines

D3 Odours

The presence of noxious, intense or prolonged odours in the work environment.

Examples:

- cooking meals
- colouring, waving and styling hair
- preserving and sanitizing human remains
- using industrial cleaning solutions
- tanning raw hides
- preparing standard cuts of meat, poultry and fish products for sale

D4 Non-toxic dusts

The presence of non-poisonous airborne particles such as textile dust, flour, sand, sawdust and feathers in the work environment.

Examples:

- preparing dough or batter
- cutting fur pelts or fabric for garments
- operating woodworking machines
- cleaning chimneys
- removing poultry feathers

D5 Wetness

Work that involves contact with water or other liquids.

Examples:

- digging ditches and trenches
- sorting, cleaning and packing fish in ice
- performing lifeguard duties
- operating underwater sonar equipment
- cleaning/disinfecting laboratory equipment
- preparing food in restaurant kitchens

EDUCATION/TRAINING INDICATORS

Education/Training indicators incorporate both educational and training requirements. These indicators consist of eight education or training types and two factors. The two factors are added to the numerical ratings where applicable and represent those requirements for entry into the occupation that cannot be objectively measured.

Each occupation is given multiple ratings, when applicable, to indicate all possible educational/training paths. In an occupation where high school *and* another type of training are required, the rating for high school completion has been dropped because a high school education is not sufficient for entry into that occupation.

NOTE – To obtain the lowest entry requirement: if the NOC describes the education or training as “usually” required, then it has been rated as if it *is* required. If it has been described as “may be” required, then it is rated as if it is *not* required. For all other cases, the education or training listed in the description has been rated as a possible option.

INDICATOR DESCRIPTION

- 1 No formal education or training requirements**
The occupation does not require formal education or training.
- 2 Some high school education and/or on-the-job training or experience**
Some high school education is required, or on-the-job training and/or previous related experience alone is adequate. Some high school education may also be combined with on-the-job training or previous experience related to the occupation.
- 3 High school**
The completion of high school is required.
- 4 Course work, training, workshops and/or experience related to the occupation**
The completion of course work, training, workshops and/or experience related to the occupation is required, usually on completion of high school. Course work refers to courses taken at special training institutes, colleges, universities and/or other training venues, but *does not* include the completion of a program.
- 5 Apprenticeship, specialized training, vocational school training**
The completion of an apprenticeship program, a specialized training program, such as hospital-based training for nurses, or a vocational school training program is required.
- 6 College, technical school (certificate, diploma)**
Completion of a program at a college or technical school is required. A program could lead to a certificate or a diploma.
- 7 Undergraduate degree**
Completion of a university degree at the bachelor's level is required.

8 Post-graduate or professional degree

Completion of a university degree at the master's or doctoral level is required. Professional degrees that require additional education beyond the bachelor's level, such as law, dentistry, pharmacy and veterinary medicine, are also included.

+ Additional requirement beyond education and training

This requirement could include extensive experience, demonstrated ability, creative ability, appointments, practicums and internships not included in other education and training descriptors. When this additional requirement is specified in the NOC, a "+" is attached to any or all numerical ratings for the occupation. The amount of experience required may vary according to industry and/or employer. Demonstrated ability may be shown through a portfolio of work or the completion of an examination. Creative ability is required for artists, performers and athletes. In the case where two or more of these factors are required for an occupation—for example, both extensive experience and demonstrated ability—only one "+" will appear. The accompanying narrative gives more specific details.

R Regulated requirement(s)

Attached to the ratings to indicate that some regulated requirement exists for that group. Regulated requirements include licensing, certification and/or association membership. In the case where two or more regulated requirements exist, the accompanying narrative provides more specific details.

Classification Structure

Major Group Structure of the *National Occupational Classification*

00	Senior Management Occupations
01-09	Middle and Other Management Occupations
11	Professional Occupations in Business and Finance
12	Skilled Administrative and Business Occupations
14	Clerical Occupations
21	Professional Occupations in Natural and Applied Sciences
22	Technical Occupations Related to Natural and Applied Sciences
31	Professional Occupations in Health
32	Technical and Skilled Occupations in Health
34	Assisting Occupations in Support of Health Services
41	Professional Occupations in Social Science, Education, Government Services and Religion
42	Paraprofessional Occupations in Law, Social Services, Education and Religion
51	Professional Occupations in Art and Culture
52	Technical and Skilled Occupations in Art, Culture, Recreation and Sport
62	Skilled Sales and Service Occupations
64	Intermediate Sales and Service Occupations
66	Elemental Sales and Service Occupations
72-73	Trades and Skilled Transport and Equipment Operators
74	Intermediate Occupations in Transport, Equipment Operation, Installation and Maintenance
76	Trades Helpers, Construction Labourers and Related Occupations
82	Skilled Occupations in Primary Industry
84	Intermediate Occupations in Primary Industry
86	Labourers in Primary Industry
92	Processing, Manufacturing and Utilities Supervisors and Skilled Operators
94-95	Processing and Manufacturing Machine Operators and Assemblers
96	Labourers in Processing, Manufacturing and Utilities

Classification Structure of the *Career Handbook*

Management Occupations

MAJOR GROUP 00

SENIOR MANAGEMENT OCCUPATIONS

001 Legislators and Senior Management

- 0011 Legislators
- 0012 Senior Government Managers and Officials
- 0013 Senior Managers – Financial, Communications Carriers and Other Business Services
- 0014 Senior Managers – Health, Education, Social and Community Services and Membership Organizations
- 0015 Senior Managers – Trade, Broadcasting and Other Services, n.e.c.*
- 0016 Senior Managers – Goods Production, Utilities, Transportation and Construction

MAJOR GROUP 01-09

MIDDLE AND OTHER MANAGEMENT OCCUPATIONS

011 Administrative Services Managers

- 0111 Financial Managers
- 0112 Human Resources Managers
- 0113 Purchasing Managers
- 0114 Other Administrative Services Managers

012 Managers in Financial and Business Services

- 0121 Insurance, Real Estate and Financial Brokerage Managers
 - 0121.1 Insurance Managers
 - 0121.2 Real Estate Managers
 - 0121.3 Mortgage Broker Managers
 - 0121.4 Securities Managers
- 0122 Banking, Credit and Other Investment Managers
 - 0122.1 Banking and Other Investment Managers
 - 0122.2 Credit Managers
- 0123 Other Business Services Managers

013 Managers in Communication (Except Broadcasting)

- 0131 Telecommunication Carriers Managers
- 0132 Postal and Courier Services Managers

021 Managers in Engineering, Architecture, Science and Information Systems

- 0211 Engineering Managers
- 0212 Architecture and Science Managers
- 0213 Information Systems and Data Processing Managers

*n.e.c. = not elsewhere classified

031 Managers in Health, Education, Social and Community Services

- 0311 Managers in Health Care
- 0312 Administrators in Post-Secondary Education and Vocational Training
 - 0312.1 Faculty Administrators
 - 0312.2 Registrars
 - 0312.3 Administrators of Vocational Training Schools
- 0313 School Principals and Administrators of Elementary and Secondary Education
 - 0313.1 School Principals
 - 0313.2 Administrators of Elementary and Secondary Education
- 0314 Managers in Social, Community and Correctional Services

041 Managers in Public Administration

- 0411 Government Managers in Health and Social Policy Development and Program Administration
- 0412 Government Managers in Economic Analysis, Policy Development and Program Administration
- 0413 Government Managers in Education Policy Development and Program Administration
- 0414 Other Managers in Public Administration

051 Managers in Art, Culture, Recreation and Sport

- 0511 Library, Archive, Museum and Art Gallery Managers
- 0512 Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts
- 0513 Recreation and Sport Program and Service Directors

061 Sales, Marketing and Advertising Managers

- 0611 Sales, Marketing and Advertising Managers
 - 0611.1 Sales Managers
 - 0611.2 Marketing Managers
 - 0611.3 Advertising Managers
 - 0611.4 Public Relations Managers

062 Managers in Retail Trade

- 0621 Retail Trade Managers

063 Managers in Food Service and Accommodation

- 0631 Restaurant and Food Service Managers
- 0632 Accommodation Service Managers

064 Managers in Protective Service

- 0641 Commissioned Police Officers
- 0642 Fire Chiefs and Senior Firefighting Officers
- 0643 Commissioned Officers, Armed Forces

065 Managers in Other Services

- 0651 Other Services Managers

071 Managers In Construction and Transportation

0711 Construction Managers

0712 Residential Home Builders and Renovators

0713 Transportation Managers

0713.1 Transportation Managers, Operations

0713.2 Transportation Managers, Freight Traffic

072 Facility Operation and Maintenance Managers

0721 Facility Operation Managers

0722 Maintenance Managers

081 Managers In Primary Production (Except Agriculture)

0811 Primary Production Managers (Except Agriculture)

091 Managers In Manufacturing and Utilities

0911 Manufacturing Managers

0912 Utilities Managers

0912.1 Water Supply Managers

0912.2 Electrical Power Distribution Managers

0912.3 Natural Gas Supply Managers

0912.4 Petroleum Product Distribution Managers

0912.5 Water Pollution Control Managers

0912.6 Waste Systems Managers

Business, Finance and Administration Occupations

MAJOR GROUP 11

PROFESSIONAL OCCUPATIONS IN BUSINESS AND FINANCE

111 Auditors, Accountants and Investment Professionals

- 1111 Financial Auditors and Accountants
 - 1111.1 Financial Auditors
 - 1111.2 Accountants
- 1112 Financial and Investment Analysts
- 1113 Securities Agents, investment Dealers and Traders
 - 1113.1 Securities Sales Agents and Investment Dealers
 - 1113.2 Traders
- 1114 Other Financial Officers
 - 1114.1 Financial Planners
 - 1114.2 Financial Examiners and Inspectors
 - 1114.3 Financial Investigators
 - 1114.4 Investment Underwriters
 - 1114.5 Trust Officers
 - 1114.6 Mortgage Brokers

112 Human Resources and Business Service Professionals

- 1121 Specialists in Human Resources
- 1122 Professional Occupations in Business Services to Management
 - 1122.1 Management Consultants
 - 1122.2 Advertising and Marketing Consultants

MAJOR GROUP 12

SKILLED ADMINISTRATIVE AND BUSINESS OCCUPATIONS

121 Clerical Supervisors

- 1211 Supervisors, General Office and Administrative Support Clerks
- 1212 Supervisors, Finance and Insurance Clerks
- 1213 Supervisors, Library, Correspondence and Related Information Clerks
- 1214 Supervisors, Mail and Message Distribution Occupations
- 1215 Supervisors, Recording, Distributing and Scheduling Occupations

122 Administrative and Regulatory Occupations

- 1221 Administrative Officers
- 1222 Executive Assistants
- 1223 Personnel and Recruitment Officers
- 1224 Property Administrators
- 1225 Purchasing Agents and Officers
- 1226 Conference and Event Planners

- 1227 Court Officers and Justices of the Peace
 - 1227.1 Court Officers
 - 1227.2 Justices of the Peace
- 1228 Immigration, Unemployment Insurance and Revenue Officers
 - 1228.1 Immigration Officers
 - 1228.2 Unemployment Insurance Officers
 - 1228.3 Customs Officers and Inspectors
 - 1228.4 Excise Tax Revenue Officers

123 Finance and Insurance Administrative Occupations

- 1231 Bookkeepers
- 1232 Loan Officers
- 1233 Insurance Adjusters and Claims Examiners
 - 1233.1 Insurance Adjusters
 - 1233.2 Insurance Claims Examiners
- 1234 Insurance Underwriters
- 1235 Assessors, Valuers and Appraisers
 - 1235.1 Assessors
 - 1235.2 Valuers
 - 1235.3 Appraisers
- 1236 Customs, Ship and Other Brokers
 - 1236.1 Customs Brokers
 - 1236.2 Ship Brokers

124 Secretaries, Records and Transcriptionists

- 1241 Secretaries (Except Legal and Medical)
- 1242 Legal Secretaries
- 1243 Medical Secretaries
- 1244 Court Records and Medical Transcriptionists
 - 1244.1 Court Records
 - 1244.2 Medical Transcriptionists

MAJOR GROUP 14 CLERICAL OCCUPATIONS

141 Clerical Occupations, General Office Skills

- 1411 General Office Clerks
- 1412 Typists and Word Processing Operators
 - 1412.1 Typists
 - 1412.2 Word Processing Operators
- 1413 Records and File Clerks
 - 1413.1 Records Clerks
 - 1413.2 File Clerks
 - 1413.3 Health Records Technicians

- 1414 Receptionists and Switchboard Operators
 - 1414.1 Receptionists
 - 1414.2 Hospital Admitting Clerks
 - 1414.3 Medical and Dental Receptionists
 - 1414.4 Switchboard Operators
 - 1414.5 Answering Service Operators

142 Office Equipment Operators

- 1421 Computer Operators
- 1422 Data Entry Clerks
- 1423 Typesetters and Related Occupations
 - 1423.1 Desktop Publishing Operators
 - 1423.2 Markup Persons
 - 1423.3 Typesetting Input Operators
 - 1423.4 Typesetting Output Operators
- 1424 Telephone Operators
 - 1424.1 Telephone Operators
 - 1424.2 Telephone Service Observers

143 Finance and Insurance Clerks

- 1431 Accounting and Related Clerks
- 1432 Payroll Clerks
- 1433 Tellers, Financial Services
- 1434 Banking, Insurance and Other Financial Clerks
 - 1434.1 Bank Clerks
 - 1434.2 Insurance Clerks
 - 1434.3 Other Financial Clerks
- 1435 Collectors

144 Administrative Support Clerks

- 1441 Administrative Clerks
- 1442 Personnel Clerks
- 1443 Court Clerks

145 Library, Correspondence and Related Information Clerks

- 1451 Library Clerks
- 1452 Correspondence, Publication and Related Clerks
 - 1452.1 Classified Advertising Clerks
 - 1452.2 Correspondence Clerks
 - 1452.3 Editorial Assistants and Publication Clerks
 - 1452.4 Proofreaders
 - 1452.5 Readers and Press Clippers
- 1453 Customer Service, Information and Related Clerks
 - 1453.1 Customer Service Clerks in Retail Establishments
 - 1453.2 Customer Service Clerks in Insurance, Telephone, Utility and Similar Companies
 - 1453.3 Information Clerks

1454 Survey Interviewers and Statistical Clerks

1454.1 Survey Interviewers

1454.2 Statistical Clerks

146 Mail and Message Distribution Occupations

1461 Mail, Postal and Related Clerks

1461.1 Postal Clerks

1461.2 Mail Sorters

1461.3 Mail Room Clerks

1462 Letter Carriers

1463 Couriers and Messengers

147 Recording, Scheduling and Distributing Occupations

1471 Shippers and Receivers

1472 Storekeepers and Parts Clerks

1473 Production Clerks

1474 Purchasing and Inventory Clerks

1474.1 Purchasing Clerks

1474.2 Inventory Clerks

1475 Dispatchers and Radio Operators

1475.1 Dispatchers

1475.2 Radio Operators

1476 Transportation Route and Crew Schedulers

Natural and Applied Sciences and Related Occupations

MAJOR GROUP 21

PROFESSIONAL OCCUPATIONS IN NATURAL AND APPLIED SCIENCES

211 Physical Science Professionals

- 2111 Physicists and Astronomers
 - 2111.1 Physicists
 - 2111.2 Astronomers
- 2112 Chemists
- 2113 Geologists, Geochemists and Geophysicists
- 2114 Meteorologists
- 2115 Other Professional Occupations in Physical Sciences
 - 2115.1 Metallurgists
 - 2115.2 Soil Scientists
 - 2115.3 Materials Scientists

212 Life Science Professionals

- 2121 Biologists and Related Scientists
 - 2121.1 Biologists
 - 2121.2 Microbiologists and Cell and Molecular Biologists
- 2122 Forestry Professionals
- 2123 Agricultural Representatives, Consultants and Specialists

213 Civil, Mechanical, Electrical and Chemical Engineers

- 2131 Civil Engineers
- 2132 Mechanical Engineers
- 2133 Electrical and Electronics Engineers
- 2134 Chemical Engineers

214 Other Engineers

- 2141 Industrial and Manufacturing Engineers
- 2142 Metallurgical and Materials Engineers
- 2143 Mining Engineers
- 2144 Geological Engineers
- 2145 Petroleum Engineers
- 2146 Aerospace Engineers
- 2147 Computer Engineers
 - 2147.1 Computer Hardware Engineers
 - 2147.2 Software Engineers
- 2148 Other Professional Engineers, n.e.c.
 - 2148.1 Agricultural Engineers
 - 2148.2 Biomedical Engineers
 - 2148.3 Engineering Physicists and Engineering Scientists
 - 2148.4 Food Processing Engineers
 - 2148.5 Marine and Naval Engineers
 - 2148.6 Textile Engineers

215 Architects, Urban Planners and Land Surveyors

- 2151 Architects
- 2152 Landscape Architects
- 2153 Urban and Land Use Planners
- 2154 Land Surveyors

216 Mathematicians, Systems Analysts and Computer Programmers

- 2161 Mathematicians, Statisticians and Actuaries
 - 2161.1 Mathematicians
 - 2161.2 Statisticians
 - 2161.3 Actuaries
- 2162 Computer Systems Analysts
- 2163 Computer Programmers

MAJOR GROUP 22

TECHNICAL OCCUPATIONS RELATED TO NATURAL AND APPLIED SCIENCES

221 Technical Occupations in Physical Sciences

- 2211 Applied Chemical Technologists and Technicians
 - 2211.1 Applied Chemical Technologists
 - 2211.2 Applied Chemical Technicians
- 2212 Geological and Mineral Technologists and Technicians
 - 2212.1 Geological and Mineral Technologists
 - 2212.2 Geological and Mineral Technicians
- 2213 Meteorological Technicians

222 Technical Occupations in Life Sciences

- 2221 Biological Technologists and Technicians
 - 2221.1 Biological Technologists
 - 2221.2 Biological Technicians
- 2222 Agricultural and Fish Products Inspectors
 - 2222.1 Fish and Fish Products Inspectors
 - 2222.2 Fruit and Vegetable Inspectors
 - 2222.3 Grain Inspectors
 - 2222.4 Meat Inspectors
 - 2222.5 Plant Protection Inspectors
- 2223 Forestry Technologists and Technicians
- 2224 Conservation and Fishery Officers
- 2225 Landscape and Horticultural Technicians and Specialists
 - 2225.1 Arborists and Tree Service Technicians
 - 2225.2 Golf Course Superintendents
 - 2225.3 Horticulturists
 - 2225.4 Landscape Designers and Landscape Architectural Technicians and Technologists
 - 2225.5 Landscape Gardeners
 - 2225.6 Landscapers
 - 2225.7 Lawn Care Specialists

223 Technical Occupations in Civil, Mechanical and Industrial Engineering

- 2231 Civil Engineering Technologists and Technicians
 - 2231.1 Civil Engineering Technologists
 - 2231.2 Civil Engineering Technicians
- 2232 Mechanical Engineering Technologists and Technicians
 - 2232.1 Mechanical Engineering Technologists
 - 2232.2 Mechanical Engineering Technicians
- 2233 Industrial Engineering and Manufacturing Technologists and Technicians
 - 2233.1 Industrial Engineering and Manufacturing Technologists
 - 2233.2 Industrial Engineering and Manufacturing Technicians
- 2234 Construction Estimators

224 Technical Occupations in Electronics and Electrical Engineering

- 2241 Electrical and Electronics Engineering Technologists and Technicians
 - 2241.1 Electrical and Electronics Engineering Technologists
 - 2241.2 Electrical and Electronics Engineering Technicians
- 2242 Electronic Service Technicians (Household and Business Equipment)
- 2243 Industrial Instrument Technicians and Mechanics
- 2244 Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors
 - 2244.1 Aircraft Instrument Mechanics and Technicians
 - 2244.2 Aircraft Electrical Mechanics and Technicians
 - 2244.3 Avionics Mechanics and Technicians
 - 2244.4 Avionics Inspectors

225 Technical Occupations in Architecture, Drafting, Surveying and Mapping

- 2251 Architectural Technologists and Technicians
- 2252 Industrial Designers
- 2253 Drafting Technologists and Technicians
 - 2253.1 Drafting Technologists
 - 2253.2 Drafting Technicians
- 2254 Survey Technologists and Technicians
 - 2254.1 Survey Technologists
 - 2254.2 Survey Technicians
- 2255 Mapping and Related Technologists and Technicians
 - 2255.1 Cartographic Technologists and Technicians
 - 2255.2 Photogrammetric Technologists and Technicians
 - 2255.3 Aerial Survey Technologists and Technicians
 - 2255.4 Remote Sensing Technologists and Technicians
 - 2255.5 Geographic Information System (GIS) Technologists and Technicians

226 Other Technical Inspectors and Regulatory Officers

- 2261 Nondestructive Testers and Inspectors
- 2262 Engineering Inspectors and Regulatory Officers
 - 2262.1 Motor Vehicles Defects Investigators
 - 2262.2 Railway Accident Investigation Officers
 - 2262.3 Airworthiness Inspectors
 - 2262.4 Inspectors, Weights and Measures

- 2263 Inspectors in Public and Environmental Health and Occupational Health and Safety
- 2264 Construction Inspectors

- 227 Transportation Officers and Controllers**
- 2271 Air Pilots, Flight Engineers and Flying Instructors
 - 2271.1 Pilots
 - 2271.2 Flight Engineers (Second Officers)
 - 2271.3 Flying Instructors
- 2272 Air Traffic Control Occupations
 - 2272.1 Air Traffic Controllers
 - 2272.2 Flight Dispatchers
 - 2272.3 Flight Service Specialists
- 2273 Deck Officers, Water Transport
- 2274 Engineer Officers, Water Transport
- 2275 Railway and Marine Traffic Controllers
 - 2275.1 Railway Traffic Controllers
 - 2275.2 Marine Traffic Controllers

Health Occupations

MAJOR GROUP 31 PROFESSIONAL OCCUPATIONS IN HEALTH

311 Physicians, Dentists and Veterinarians

- 3111 Specialist Physicians
 - 3111.1 Specialists in Clinical Medicine
 - 3111.2 Specialists in Laboratory Medicine
 - 3111.3 Specialists in Surgery
- 3112 General Practitioners and Family Physicians
- 3113 Dentists
- 3114 Veterinarians

312 Optometrists, Chiropractors and Other Health Diagnosing and Treating Professionals

- 3121 Optometrists
- 3122 Chiropractors
- 3123 Other Professional Occupations in Health Diagnosing and Treating
 - 3123.1 Podiatrists and Chiropodists
 - 3123.2 Naturopaths
 - 3123.3 Orthoptists
 - 3123.4 Osteopaths

313 Pharmacists, Dietitians and Nutritionists

- 3131 Pharmacists
 - 3131.1 Community Pharmacists and Hospital Pharmacists
 - 3131.2 Industrial Pharmacists
- 3132 Dietitians and Nutritionists

314 Therapy and Assessment Professionals

- 3141 Audiologists and Speech-Language Pathologists
 - 3141.1 Audiologists
 - 3141.2 Speech-Language Pathologists
- 3142 Physiotherapists
- 3143 Occupational Therapists
- 3144 Other Professional Occupations in Therapy and Assessment

315 Nurse Supervisors and Registered Nurses

- 3151 Head Nurses and Supervisors
- 3152 Registered Nurses
 - 3152.1 General Duty Registered Nurses
 - 3152.2 Occupational Health Nurses
 - 3152.3 Public Health Nurses
 - 3152.4 Psychiatric Nurses
 - 3152.5 Nursing Consultants
 - 3152.6 Nursing Researchers

MAJOR GROUP 32
TECHNICAL AND SKILLED OCCUPATIONS IN HEALTH

321 Medical Technologists and Technicians (Except Dental Health)

- 3211 Medical Laboratory Technologists and Pathologists' Assistants
 - 3211.1 Medical Laboratory Technologists
 - 3211.2 Pathologists' Assistants
- 3212 Medical Laboratory Technicians
- 3213 Animal Health Technologists
- 3214 Respiratory Therapists and Clinical Perfusionists
 - 3214.1 Respiratory Therapists
 - 3214.2 Clinical Perfusionists
- 3215 Medical Radiation Technologists
 - 3215.1 Radiography Technologists
 - 3215.2 Nuclear Medicine Technologists
 - 3215.3 Radiation Therapists
- 3216 Medical Sonographers
- 3217 Cardiology Technologists
- 3218 Electroencephalographic and Other Diagnostic Technologists, n.e.c.
 - 3218.1 Electroencephalographic Technologists
 - 3218.2 Electromyography Technologists
- 3219 Other Medical Technologists and Technicians (Except Dental Health)
 - 3219.1 Dietary Technicians
 - 3219.2 Ocularists
 - 3219.3 Prosthetists and Orthotists
 - 3219.4 Prosthetic and Orthotic Technicians

322 Technical Occupations in Dental Health Care

- 3221 Denturists
- 3222 Dental Hygienists and Dental Therapists
 - 3222.1 Dental Hygienists
 - 3222.2 Dental Therapists
- 3223 Dental Technicians

323 Other Technical Occupations in Health Care (Except Dental)

- 3231 Opticians
- 3232 Midwives and Practitioners of Natural Healing
 - 3232.1 Midwives
 - 3232.2 Acupuncturists
 - 3232.3 Chinese Medical Practitioners
 - 3232.4 Herbalists
 - 3232.5 Homeopaths
 - 3232.6 Reflexologists
 - 3232.7 Rolfers
- 3233 Registered Nursing Assistants
 - 3233.1 Registered Nursing Assistants
 - 3233.2 Operating Room Technicians

- 3234 Ambulance Attendants and Other Paramedical Occupations
- 3235 Other Technical Occupations in Therapy and Assessment
 - 3235.1 Audio Prosthetists
 - 3235.2 Audiometric Assistants
 - 3235.3 Communication Assistants
 - 3235.4 Massage Therapists
 - 3235.5 Ophthalmic Medical Assistants
 - 3235.6 Physical Rehabilitation Technicians

MAJOR GROUP 34

ASSISTING OCCUPATIONS IN SUPPORT OF HEALTH SERVICES

341 Assisting Occupations in Support of Health Services

- 3411 Dental Assistants
- 3412 Dental Laboratory Bench Workers
- 3413 Nurse Aides and Orderlies
- 3414 Other Aides and Assistants in Support of Health Services
 - 3414.1 Orthopaedic Technologists
 - 3414.2 Pharmacy Assistants
 - 3414.3 Morgue Attendants

Occupations in Social Science, Education, Government Services and Religion

MAJOR GROUP 41

PROFESSIONAL OCCUPATIONS IN SOCIAL SCIENCE, EDUCATION, GOVERNMENT SERVICES AND RELIGION

411 Judges, Lawyers and Quebec Notaries

4111 Judges

4112 Lawyers and Quebec Notaries

412 University Professors and Assistants

4121 University Professors

4122 Post-Secondary Teaching and Research Assistants

4122.1 Post-Secondary Teaching Assistants

4122.2 Post-Secondary Research Assistants

413 College and Other Vocational Instructors

4131 College and Other Vocational Instructors

414 Secondary and Elementary School Teachers and Counsellors

4141 Secondary School Teachers

4142 Elementary School and Kindergarten Teachers

4143 School and Guidance Counsellors

415 Psychologists, Social Workers, Counsellors, Clergy and Probation Officers

4151 Psychologists

4152 Social Workers

4153 Family, Marriage and Other Related Counsellors

4154 Ministers of Religion

4155 Probation and Parole Officers and Related Occupations

4155.1 Probation and Parole Officers

4155.2 Classification Officers, Correctional Institutions

416 Policy and Program Officers, Researchers and Consultants

4161 Natural and Applied Science Policy Researchers, Consultants and Program Officers

4161.1 Ergonomists

4161.2 Occupational Hygienists

4161.3 Patent Agents

4161.4 Science Policy and Program Officers

4162 Economists and Economic Policy Researchers and Analysts

4163 Economic Development Officers and Marketing Researchers and Consultants

4164 Social Policy Researchers, Consultants and Program Officers

4164.1 Social Policy Researchers

4164.2 Home Economists

4164.3 Housing Policy Analysts

4164.4 International Aid and Development Project Officers

4164.5 Social Survey Researchers

- 4165 Health Policy Researchers, Consultants and Program Officers
- 4166 Education Policy Researchers, Consultants and Program Officers
- 4167 Recreation and Sports Program Supervisors and Consultants
 - 4167.1 Kinesiologists
 - 4167.2 Fitness Consultants
 - 4167.3 Recreation Consultants
 - 4167.4 Recreation, Sports and Fitness Policy Analysts
 - 4167.5 Recreation and Sports Program Supervisors
 - 4167.6 Sports Consultants
- 4168 Program Officers Unique to Government
- 4169 Other Professional Occupations in Social Science
 - 4169.1 Anthropologists
 - 4169.2 Archaeologists
 - 4169.3 Geographers
 - 4169.4 Historians
 - 4169.5 Linguists
 - 4169.6 Political Scientists
 - 4169.7 Psychometricians
 - 4169.8 Sociologists

MAJOR GROUP 42

PARAPROFESSIONAL OCCUPATIONS IN LAW, SOCIAL SERVICES, EDUCATION AND RELIGION

421 Paralegals, Social Services Workers and Occupations in Education and Religion, n.e.c.

- 4211 Paralegal and Related Occupations
 - 4211.1 Legal Assistants and Paralegals
 - 4211.2 Notaries Public
 - 4211.3 Trade Mark Agents
 - 4211.4 Independent Paralegals
- 4212 Community and Social Service Workers
- 4213 Employment Counsellors
- 4214 Early Childhood Educators
- 4215 Instructors and Teachers of Disabled Persons
- 4216 Other Instructors
 - 4216.1 Driving Instructors
 - 4216.2 Driver's Licence Examiners
 - 4216.3 Sewing Instructors
 - 4216.4 Modelling and Finishing School Instructors
- 4217 Other Religious Occupations

Occupations in Art, Culture, Recreation and Sport

MAJOR GROUP 51

PROFESSIONAL OCCUPATIONS IN ART AND CULTURE

511 Librarians, Archivists, Conservators and Curators

- 5111 Librarians
- 5112 Conservators and Curators
 - 5112.1 Conservators
 - 5112.2 Curators
- 5113 Archivists

512 Writing, Translating and Public Relations Professionals

- 5121 Writers
 - 5121.1 Creative Writers
 - 5121.2 Technical Writers
 - 5121.3 Copywriters
- 5122 Editors
- 5123 Journalists
- 5124 Professional Occupations in Public Relations and Communications
- 5125 Translators, Terminologists and Interpreters
 - 5125.1 Translators
 - 5125.2 Terminologists
 - 5125.3 Interpreters

513 Creative and Performing Artists

- 5131 Producers, Directors, Choreographers and Related Occupations
 - 5131.1 Film, Television and Radio Producers
 - 5131.2 Directors
 - 5131.3 Choreographers
 - 5131.4 Art Directors
 - 5131.5 Film Editors
 - 5131.6 Record Producers
 - 5131.7 Directors of Photography
- 5132 Conductors, Composers and Arrangers
 - 5132.1 Conductors
 - 5132.2 Composers
 - 5132.3 Arrangers
- 5133 Musicians and Singers
 - 5133.1 Musicians
 - 5133.2 Singers
 - 5133.3 Teachers of Music or Voice
- 5134 Dancers
 - 5134.1 Dancers
 - 5134.2 Dance Teachers

- 5135 Actors
 - 5135.1 Actors
 - 5135.2 Acting Teachers
- 5136 Painters, Sculptors and Other Visual Artists
 - 5136.1 Painters
 - 5136.2 Sculptors
 - 5136.3 Art Instructors and Teachers

MAJOR GROUP 52
TECHNICAL AND SKILLED OCCUPATIONS
IN ART, CULTURE, RECREATION AND SPORT

521 Technical Occupations in Libraries, Archives, Museums and Galleries

- 5211 Library and Archive Technicians and Assistants
- 5212 Technical Occupations Related to Museums and Galleries
 - 5212.1 Conservation and Restoration Technicians
 - 5212.2 Curatorial Assistants
 - 5212.3 Museum Guides and Interpreters
 - 5212.4 Museum Extension Officers
 - 5212.5 Museum Registrars and Cataloguers
 - 5212.6 Preparators
 - 5212.7 Picture Framers
 - 5212.8 Taxidermists

522 Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts

- 5221 Photographers
- 5222 Film and Video Camera Operators
- 5223 Graphic Arts Technicians
 - 5223.1 Animation Painters
 - 5223.2 Copy Stylists
 - 5223.3 Paste-Up Artists
 - 5223.4 Sign Painters
 - 5223.5 Stencil Makers
 - 5223.6 Lettering Artists
- 5224 Broadcast Technicians
- 5225 Audio and Video Recording Technicians
- 5226 Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts
 - 5226.1 Floor Directors
 - 5226.2 Key Grips
 - 5226.3 Gaffers and Lighting Technicians
 - 5226.4 Stunt Co-ordinators and Special Effects Technicians
 - 5226.5 Make-Up Artists
 - 5226.6 Wardrobe Supervisors
 - 5226.7 Other Workers in Motion Pictures, Broadcasting and the Performing Arts

- 5227 Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts
 - 5227.1 Grips
 - 5227.2 Motion Picture Projectionists
 - 5227.3 Props Persons and Set Dressers
 - 5227.4 Script Assistants
 - 5227.5 Stagehands and Riggers
 - 5227.6 Wardrobe Attendants

523 Announcers and Other Performers

- 5231 Announcers and Other Broadcasters
- 5232 Other Performers
 - 5232.1 Buskers
 - 5232.2 Circus Performers
 - 5232.3 Magicians and Illusionists
 - 5232.4 Models
 - 5232.5 Puppeteers

524 Creative Designers and Craftspersons

- 5241 Graphic Designers and Illustrating Artists
- 5242 Interior Designers
- 5243 Theatre, Fashion, Exhibit and Other Creative Designers
 - 5243.1 Theatre Designers
 - 5243.2 Fashion Designers
 - 5243.3 Exhibit Designers
- 5244 Artisans and Craftspersons
 - 5244.1 Carvers
 - 5244.2 Glass Blowers
 - 5244.3 Metal Arts Workers
 - 5244.4 Potters
 - 5244.5 Stained Glass Artists
 - 5244.6 Stringed Instrument Makers
 - 5244.7 Weavers
 - 5244.8 Craft Instructors
- 5245 Patternmakers – Textile, Leather and Fur Products

525 Athletes, Coaches, Referees and Related Occupations

- 5251 Athletes
- 5252 Coaches
 - 5252.1 Coaches
 - 5252.2 Sports Scouts
- 5253 Sports Officials and Referees
- 5254 Program Leaders and Instructors in Recreation and Sport

Sales and Service Occupations

MAJOR GROUP 62 SKILLED SALES AND SERVICE OCCUPATIONS

621 Sales and Service Supervisors

- 6211 Retail Trade Supervisors
- 6212 Food Service Supervisors
- 6213 Executive Housekeepers
- 6214 Dry Cleaning and Laundry Supervisors
- 6215 Cleaning Supervisors
- 6216 Other Service Supervisors

622 Technical Sales Specialists, Wholesale Trade

- 6221 Technical Sales Specialists, Wholesale Trade

623 Insurance and Real Estate Sales Occupations and Buyers

- 6231 Insurance Agents and Brokers
- 6232 Real Estate Agents and Salespersons
- 6233 Retail and Wholesale Buyers
- 6234 Grain Elevator Operators

624 Chefs and Cooks

- 6241 Chefs
 - 6241.1 Executive Chefs
 - 6241.2 Sous-Chefs
 - 6241.3 Chefs and Specialist Chefs
- 6242 Cooks

625 Butchers and Bakers

- 6251 Butchers and Meat Cutters, Retail and Wholesale
- 6252 Bakers

626 Police Officers and Firefighters

- 6261 Police Officers (Except Commissioned)
- 6262 Firefighters

627 Technical Occupations in Personal Service

- 6271 Hairstylists and Barbers
 - 6271.1 Hairstylists
 - 6271.2 Barbers
- 6272 Funeral Directors and Embalmers
 - 6272.1 Funeral Directors
 - 6272.2 Embalmers

MAJOR GROUP 64
INTERMEDIATE SALES AND SERVICE OCCUPATIONS

641 Sales Representatives, Wholesale Trade

6411 Sales Representatives, Wholesale Trade (Non-Technical)

642 Retail Salespersons and Sales Clerks

6421 Retail Salespersons and Sales Clerks

643 Occupations in Travel and Accommodation

6431 Travel Counsellors

6432 Purser and Flight Attendants

6432.1 Flight Attendants

6432.2 Flight Purser and Passenger Service Directors

6432.3 Ship Purser

6433 Airline Sales and Service Agents

6433.1 Airline Passenger and Ticket Agents

6433.2 Airline Baggage Agents

6433.3 Airline Cargo Agents

6433.4 Airline Reservation Agents

6433.5 Airline Station Agents

6433.6 Airline Load Planners

6434 Ticket and Cargo Agents and Related Clerks (Except Airline)

6434.1 Ticket Agents and Related Clerks (Except Airline)

6434.2 Cargo Agents (Except Airline)

6435 Hotel Front Desk Clerks

644 Tour and Recreational Guides and Amusement Occupations

6441 Tour and Travel Guides

6441.1 Tour Guides

6441.2 Travel Guides

6442 Outdoor Sport and Recreational Guides

6443 Amusement Attraction Operators and Other Amusement Occupations

6443.1 Amusement Attraction Operators

6443.2 Gambling Dealers

645 Occupations in Food and Beverage Service

6451 Maitres d'hôtel and Hosts/Hostesses

6452 Bartenders

6453 Food and Beverage Servers

646 Other Occupations in Protective Service

6461 Sheriffs and Bailiffs

6462 Correctional Service Officers

6463 By-law Enforcement and Other Regulatory Officers, n.e.c.

6463.1 Animal Control Officers

6463.2 By-law Enforcement Officers

6463.3 Commercial Transport Inspectors

- 6463.4 Garbage Collection Inspectors
- 6463.5 Liquor Licence Inspectors
- 6463.6 Parking Control Officers
- 6463.7 Taxi Inspectors
- 6464 Occupations Unique to the Armed Forces
- 6465 Other Protective Service Occupations
 - 6465.1 Corporate Security Officers
 - 6465.2 Private Investigators
 - 6465.3 Retail Loss Prevention Officers
- 647 Childcare and Home Support Workers**
- 6471 Visiting Homemakers, Housekeepers and Related Occupations
 - 6471.1 Visiting Homemakers
 - 6471.2 Housekeepers
 - 6471.3 Companions
 - 6471.4 Foster Parents
- 6472 Elementary and Secondary School Teacher Assistants
- 6473 Early Childhood Educator Assistants
- 6474 Babysitters, Nannies and Parents' Helpers
 - 6474.1 Babysitters
 - 6474.2 Nannies and Live-in Caregivers
 - 6474.3 Parents' Helpers
- 648 Other Occupations in Personal Service**
- 6481 Image, Social and Other Personal Consultants
 - 6481.1 Image Consultants
 - 6481.2 Make-Up Consultants
 - 6481.3 Colour Consultants
 - 6481.4 Wedding Consultants
 - 6481.5 Weight Loss Consultants
- 6482 Estheticians, Electrologists and Related Occupations
 - 6482.1 Estheticians
 - 6482.2 Cosmeticians
 - 6482.3 Electrologists
 - 6482.4 Manicurists and Pedicurists
 - 6482.5 Scalp Treatment Specialists
 - 6482.6 Tattoo Artists
- 6483 Pet Groomers and Animal Care Workers
- 6484 Other Personal Service Occupations
 - 6484.1 Astrologers
 - 6484.2 Psychic Consultants

MAJOR GROUP 66
ELEMENTAL SALES AND SERVICE OCCUPATIONS

661 Cashiers

6611 Cashiers

662 Other Sales and Related Occupations

6621 Service Station Attendants

6621.1 Automotive Service Station Attendants

6621.2 Marina Service Station Attendants

6622 Grocery Clerks and Shelf Stockers

6623 Other Elemental Sales Occupations

6623.1 Direct Distributors and Door-to-Door Salespersons

6623.2 Street Vendors

6623.3 Telephone Solicitors and Telemarketers

6623.4 Demonstrators

663 Elemental Medical and Hospital Assistants

6631 Elemental Medical and Hospital Assistants

6631.1 Blood Donor Clinic Assistants

6631.2 Central Supply Aides

6631.3 Chiropractic Aides

6631.4 Occupational Therapy Assistants

6631.5 Physiotherapy Assistants

664 Food Counter Attendants and Kitchen Helpers

6641 Food Service Counter Attendants and Food Preparers

6642 Kitchen and Food Service Helpers

6642.1 Kitchen Helpers

6642.2 Food Service Helpers

6642.3 Dishwashers

665 Security Guards and Related Occupations

6651 Security Guards and Related Occupations

666 Cleaners

6661 Light Duty Cleaners

6662 Specialized Cleaners

6662.1 Carpet and Upholstery Cleaners

6662.2 Chimney Cleaners

6662.3 Furnace and Ventilation System Cleaners

6662.4 Sandblasters

6662.5 Vehicle Cleaners

6662.6 Window Cleaners

6663 Janitors, Caretakers and Building Superintendents

667 Other Attendants In Travel, Accommodation and Recreation

- 6671 Attendants in Recreation and Sport
 - 6671.1 Amusement Park Attendants
 - 6671.2 Ski Lift Attendants
 - 6671.3 Bowling Alley Attendants
 - 6671.4 Ice Makers
 - 6671.5 Recreational Facility Attendants
- 6672 Other Attendants in Accommodation and Travel (Except Airline Travel)
 - 6672.1 Bellhops
 - 6672.2 Baggage Porters
 - 6672.3 Ship Attendants
 - 6672.4 Train Service Attendants

668 Other Elemental Service Occupations

- 6681 Dry Cleaning and Laundry Occupations
 - 6681.1 Dry Cleaning and Laundry Machine Operators
 - 6681.2 Dry Cleaning and Laundry Inspectors and Assemblers
- 6682 Ironing, Pressing and Finishing Occupations
- 6683 Other Elemental Service Occupations
 - 6683.1 Beauty Salon Attendants
 - 6683.2 Door Attendants
 - 6683.3 Funeral Attendants
 - 6683.4 Laundromat Attendants
 - 6683.5 Parking Lot Attendants and Car Jockeys
 - 6683.6 Ticket Takers and Ushers

Trades, Transport and Equipment Operators and Related Occupations

MAJOR GROUP 72-73

TRADES AND SKILLED TRANSPORT AND EQUIPMENT OPERATORS

721 Contractors and Supervisors, Trades and Related Workers

- 7211 Supervisors, Machinists and Related Occupations
- 7212 Contractors and Supervisors, Electrical Trades and Telecommunications Occupations
- 7213 Contractors and Supervisors, Pipefitting Trades
- 7214 Contractors and Supervisors, Metal Forming, Shaping and Erecting Occupations
- 7215 Contractors and Supervisors, Carpentry Trades
- 7216 Contractors and Supervisors, Mechanic Trades
- 7217 Contractors and Supervisors, Heavy Construction Equipment Crews
- 7218 Supervisors, Printing and Related Occupations
- 7219 Contractors and Supervisors, Other Construction Trades, Installers, Repairers and Servicers

722 Supervisors, Railway and Motor Transportation Occupations

- 7221 Supervisors, Railway Transport Operations
- 7222 Supervisors, Motor Transport and Other Ground Transit Operators

723 Machinists and Related Occupations

- 7231 Machinists and Machining and Tooling Inspectors
 - 7231.1 Machinists
 - 7231.2 Machining and Tooling Inspectors
- 7232 Tool and Die Makers

724 Electrical Trades and Telecommunication Occupations

- 7241 Electricians (Except Industrial and Power System)
- 7242 Industrial Electricians
- 7243 Power System Electricians
- 7244 Electrical Power Line and Cable Workers
- 7245 Telecommunications Line and Cable Workers
- 7246 Telecommunications Installation and Repair Workers
 - 7246.1 Telephone Installers and Repairers
 - 7246.2 Switch Network Installers and Repairers
 - 7246.3 Telecommunications Service Testers
 - 7246.4 Telecommunications Equipment Technicians
- 7247 Cable Television Service and Maintenance Technicians
 - 7247.1 Cable Television Service Technicians
 - 7247.2 Cable Television Maintenance Technicians

725 Plumbers, Pipefitters and Gas Fitters

- 7251 Plumbers
- 7252 Steamfitters, Pipefitters and Sprinkler System Installers
 - 7252.1 Steamfitters and Pipefitters
 - 7252.2 Sprinkler System Installers
- 7253 Gas Fitters

726 Metal Forming, Shaping and Erecting Occupations

- 7261 Sheet Metal Workers
- 7262 Boilermakers
- 7263 Structural Metal and Platework Fabricators and Fitters
- 7264 Ironworkers
- 7265 Welders
- 7266 Blacksmiths and Die Setters
 - 7266.1 Blacksmiths
 - 7266.2 Die Setters

727 Carpenters and Cabinetmakers

- 7271 Carpenters
- 7272 Cabinetmakers

728 Masonry and Plastering Trades

- 7281 Bricklayers
- 7282 Cement Finishers
- 7283 Tiles setters
- 7284 Plasterers, Drywall Installers and Finishers and Lathers
 - 7284.1 Plasterers
 - 7284.2 Drywall Installers and Finishers
 - 7284.3 Lathers

729 Other Construction Trades

- 7291 Roofers and Shinglers
 - 7291.1 Roofers
 - 7291.2 Shinglers
- 7292 Glaziers
- 7293 Insulators
- 7294 Painters and Decorators
- 7295 Floor Covering Installers

731 Machinery and Transportation Equipment Mechanics (Except Motor Vehicle)

- 7311 Construction Millwrights and Industrial Mechanics (Except Textile)
- 7312 Heavy-Duty Equipment Mechanics
- 7313 Refrigeration and Air Conditioning Mechanics
- 7314 Railway Carmen/women
- 7315 Aircraft Mechanics and Aircraft Inspectors
 - 7315.1 Aircraft Mechanics
 - 7315.2 Aircraft Inspectors
- 7316 Machine Fitters
- 7317 Textile Machinery Mechanics and Repairers
- 7318 Elevator Constructors and Mechanics

732 Motor Vehicle Mechanics

- 7321 Motor Vehicle Mechanics, Technicians and Mechanical Repairers
 - 7321.1 Motor Vehicle Mechanics and Technicians
 - 7321.2 Mechanical Repairers, Motor Vehicle Manufacturing

- 7322 Motor Vehicle Body Repairers
- 733 Other Mechanics**
 - 7331 Oil and Solid Fuel Heating Mechanics
 - 7332 Electric Appliance Servicers and Repairers
 - 7332.1 Small Appliance Servicers and Repairers
 - 7332.2 Major Appliance Repairers/Technicians
 - 7333 Electrical Mechanics
 - 7334 Motorcycle and Other Related Mechanics
 - 7335 Other Small Engine and Equipment Mechanics
- 734 Upholsterers, Tailors, Shoe Repairers, Jewellers and Related Occupations**
 - 7341 Upholsterers
 - 7342 Tailors, Dressmakers, Furriers and Milliners
 - 7342.1 Tailors and Dressmakers
 - 7342.2 Furriers
 - 7342.3 Milliners
 - 7342.4 Seamstresses
 - 7343 Shoe Repairers and Shoemakers
 - 7343.1 Shoemakers
 - 7343.2 Shoe Repairers
 - 7344 Jewellers, Watch Repairers and Related Occupations
 - 7344.1 Jewellers and Related Workers
 - 7344.2 Watch Repairers
- 735 Stationary Engineers and Power Station and System Operators**
 - 7351 Stationary Engineers and Auxiliary Equipment Operators
 - 7352 Power Systems and Power Station Operators
 - 7352.1 Power Systems Operators
 - 7352.2 Power Station Operators
- 736 Train Crew Operating Occupations**
 - 7361 Railway and Yard Locomotive Engineers
 - 7361.1 Railway Locomotive Engineers
 - 7361.2 Yard Locomotive Engineers
 - 7362 Railway Conductors and Brakemen/women
 - 7362.1 Railway Conductors
 - 7362.2 Brakemen/women
- 737 Crane Operators, Drillers and Blasters**
 - 7371 Crane Operators
 - 7372 Drillers and Blasters – Surface Mining, Quarrying and Construction
 - 7372.1 Drillers – Surface Mining, Quarrying and Construction
 - 7372.2 Blasters – Surface Mining, Quarrying and Construction
 - 7373 Water Well Drillers

**738 Printing Press Operators, Commercial Divers and Other Trades
and Related Occupations, n.e.c.**

- 7381 Printing Press Operators
- 7382 Commercial Divers
- 7383 Other Trades and Related Occupations
 - 7383.1 Gunsmiths
 - 7383.2 Locksmiths
 - 7383.3 Recreational Vehicle Repairers
 - 7383.4 Safe and Vault Servicers
 - 7383.5 Saw Fitters

MAJOR GROUP 74

**INTERMEDIATE OCCUPATIONS IN TRANSPORT, EQUIPMENT OPERATION,
INSTALLATION AND MAINTENANCE**

741 Motor Vehicle and Transit Drivers

- 7411 Truck Drivers
- 7412 Bus Drivers and Subway and Other Transit Operators
 - 7412.1 Bus and Streetcar Drivers
 - 7412.2 School Bus Drivers
 - 7412.3 Subway Train and Light Rail Transit Operators
- 7413 Taxi and Limousine Drivers and Chauffeurs
 - 7413.1 Taxi and Limousine Drivers
 - 7413.2 Chauffeurs
- 7414 Delivery Drivers

742 Heavy Equipment Operators

- 7421 Heavy Equipment Operators (Except Crane)
- 7422 Public Works Maintenance Equipment Operators

743 Other Transport Equipment Operators and Related Workers

- 7431 Railway Yard Workers
- 7432 Railway Track Maintenance Workers
- 7433 Deck Crew, Water Transport
- 7434 Engine Room Crew, Water Transport
- 7435 Lock and Cable Ferry Operators and Related Occupations
 - 7435.1 Lock Equipment Operators
 - 7435.2 Cable Ferry Operators
 - 7435.3 Ferry Terminal Workers
- 7436 Boat Operators
- 7437 Air Transport Ramp Attendants

744 Other Installers, Repairers and Servicers

- 7441 Residential and Commercial Installers and Servicers
- 7442 Waterworks and Gas Maintenance Workers
 - 7442.1 Waterworks Maintenance Workers
 - 7442.2 Gas Maintenance Workers

- 7443 Automotive Mechanical Installers and Servicers
- 7444 Pest Controllers and Fumigators
- 7445 Other Repairers and Servicers

745 Longshore Workers and Material Handlers

- 7451 Longshore Workers
- 7452 Material Handlers
 - 7452.1 Material Handlers (Manual)
 - 7452.2 Material Handlers (Equipment Operators)

MAJOR GROUP 76

TRADES HELPERS, CONSTRUCTION LABOURERS AND RELATED OCCUPATIONS

761 Trades Helpers and Labourers

- 7611 Construction Trades Helpers and Labourers
- 7612 Other Trades Helpers and Labourers

762 Public Works and Other Labourers, n.e.c.

- 7621 Public Works and Maintenance Labourers
- 7622 Railway and Motor Transport Labourers
 - 7622.1 Railway Labourers
 - 7622.2 Motor Transport Labourers

Occupations Unique to Primary Industry

MAJOR GROUP 82

SKILLED OCCUPATIONS IN PRIMARY INDUSTRY

821 Supervisors, Logging and Forestry

8211 Supervisors, Logging and Forestry

822 Supervisors, Mining, Oil and Gas

8221 Supervisors, Mining and Quarrying

8222 Supervisors, Oil and Gas Drilling and Service

823 Underground Miners, Oil and Gas Drillers and Related Workers

8231 Underground Production and Development Miners

8232 Oil and Gas Well Drillers, Servicers, Testers and Related Workers

8232.1 Oil and Gas Well Drillers and Well Servicers

8232.2 Oil and Gas Well Loggers, Testers and Related Workers

824 Logging Machinery Operators

8241 Logging Machinery Operators

8241.1 Cable Yarding System Operators

8241.2 Mechanical Harvester and Forwarder Operators

8241.3 Mechanical Tree Processor and Loader Operators

825 Contractors, Operators and Supervisors in Agriculture, Horticulture and Aquaculture

8251 Farmers and Farm Managers

8252 Agricultural and Related Service Contractors and Managers

8253 Farm Supervisors and Specialized Livestock Workers

8253.1 Farm Supervisors

8253.2 Specialized Livestock Workers

8254 Nursery and Greenhouse Operators and Managers

8255 Landscaping and Grounds Maintenance Contractors and Managers

8256 Supervisors, Landscape and Horticulture

8257 Aquaculture Operators and Managers

826 Fishing Vessel Masters and Skippers and Fishermen/women

8261 Fishing Masters and Officers

8262 Fishing Vessel Skippers and Fishermen/women

MAJOR GROUP 84
INTERMEDIATE OCCUPATIONS IN PRIMARY INDUSTRY

841 Mine Service Workers and Operators in Oil and Gas Drilling

- 8411 Underground Mine Service and Support Workers
- 8412 Oil and Gas Well Drilling Workers and Services Operators
 - 8412.1 Oil and Gas Well Drilling Workers
 - 8412.2 Oil and Gas Well Services Operators

842 Logging and Forestry Workers

- 8421 Chainsaw and Skidder Operators
- 8422 Silviculture and Forestry Workers

843 Agriculture and Horticulture Workers

- 8431 General Farm Workers
- 8432 Nursery and Greenhouse Workers

844 Other Fishing and Trapping Occupations

- 8441 Fishing Vessel Deckhands
- 8442 Trappers and Hunters
 - 8442.1 Trappers
 - 8442.2 Hunters

MAJOR GROUP 86
LABOURERS IN PRIMARY INDUSTRY

861 Primary Production Labourers

- 8611 Harvesting Labourers
- 8612 Landscaping and Grounds Maintenance Labourers
- 8613 Aquaculture and Marine Harvest Labourers
 - 8613.1 Aquaculture Support Workers
 - 8613.2 Marine Plant Gatherers
 - 8613.3 Shellfish Harvesters
- 8614 Mine Labourers
- 8615 Oil and Gas Drilling, Servicing and Related Labourers
- 8616 Logging and Forestry Labourers

Occupations Unique to Processing, Manufacturing and Utilities

MAJOR GROUP 92

PROCESSING, MANUFACTURING AND UTILITIES SUPERVISORS AND SKILLED OPERATORS

921 Supervisors, Processing Occupations

- 9211 Supervisors, Mineral and Metal Processing
- 9212 Supervisors, Petroleum, Gas and Chemical Processing and Utilities
- 9213 Supervisors, Food, Beverage and Tobacco Processing
- 9214 Supervisors, Plastic and Rubber Products Manufacturing
- 9215 Supervisors, Forest Products Processing
- 9216 Supervisors, Textile Processing

922 Supervisors, Assembly and Fabrication

- 9221 Supervisors, Motor Vehicle Assembling
- 9222 Supervisors, Electronics Manufacturing
- 9223 Supervisors, Electrical Products Manufacturing
- 9224 Supervisors, Furniture and Fixtures Manufacturing
- 9225 Supervisors, Fabric, Fur and Leather Products Manufacturing
- 9226 Supervisors, Other Mechanical and Metal Products Manufacturing
- 9227 Supervisors, Other Products Manufacturing and Assembly

923 Central Control and Process Operators in Manufacturing and Processing

- 9231 Central Control and Process Operators, Mineral and Metal Processing
- 9232 Petroleum, Gas and Chemical Process Operators
- 9233 Pulping Control Operators
- 9234 Papermaking and Coating Control Operators

MAJOR GROUP 94-95

PROCESSING AND MANUFACTURING MACHINE OPERATORS AND ASSEMBLERS

941 Machine Operators and Related Workers in Metal and Mineral Products Processing

- 9411 Machine Operators, Mineral and Metal Processing
- 9412 Foundry Workers
 - 9412.1 Manual Mouldmakers
 - 9412.2 Manual Coremakers
 - 9412.3 Machine Mouldmakers and Coremakers
 - 9412.4 Metal Casters
 - 9412.5 Foundry Furnace Operators
- 9413 Glass Forming and Finishing Machine Operators and Glass Cutters
 - 9413.1 Glass Process Control Operators
 - 9413.2 Glass Forming Machine Operators
 - 9413.3 Glass Finishing Machine Operators
 - 9413.4 Glass Cutters

- 9414 Concrete, Clay and Stone Forming Operators
 - 9414.1 Concrete Products Forming and Finishing Workers
 - 9414.2 Concrete Products Machine Operators
 - 9414.3 Clay Products Forming and Finishing Machine Operators
 - 9414.4 Stone Forming and Finishing Workers
- 9415 Inspectors and Testers, Mineral and Metal Processing

- 942 Machine Operators and Related Workers in Chemical, Plastic and Rubber Processing**
 - 9421 Chemical Plant Machine Operators
 - 9422 Plastics Processing Machine Operators
 - 9422.1 Mixing Machine Operators
 - 9422.2 Calendering Process Operators
 - 9422.3 Extruding Process Operators
 - 9422.4 Moulding Process Operators
 - 9423 Rubber Processing Machine Operators and Related Workers
 - 9423.1 Rubber Processing Machine Operators
 - 9423.2 Assemblers, Rubber Products
 - 9423.3 Rubber Products Inspectors
 - 9424 Water and Waste Plant Operators
 - 9424.1 Water Plant Operators
 - 9424.2 Waste Plant Operators

- 943 Machine Operators and Related Workers in Pulp and Paper Production and Wood Processing**
 - 9431 Sawmill Machine Operators
 - 9432 Pulp Mill Machine Operators
 - 9433 Papermaking and Finishing Machine Operators
 - 9434 Other Wood Processing Machine Operators
 - 9435 Paper Converting Machine Operators
 - 9436 Lumber Graders and Other Wood Processing Inspectors and Graders
 - 9436.1 Lumber Graders
 - 9436.2 Other Wood Processing Inspectors and Graders

- 944 Machine Operators and Related Workers in Textile Processing**
 - 9441 Textile Fibre and Yarn Preparation Machine Operators
 - 9442 Weavers, Knitters and Other Fabric-Making Occupations
 - 9443 Textile Dyeing and Finishing Machine Operators
 - 9444 Textile Inspectors, Graders and Samplers

- 945 Machine Operators and Related Workers in Fabric, Fur and Leather Products Manufacturing**
 - 9451 Sewing Machine Operators
 - 9452 Fabric, Fur and Leather Cutters
 - 9452.1 Fabric Cutters
 - 9452.2 Fur Cutters
 - 9452.3 Leather Cutters
 - 9453 Hide and Pelt Processing Workers
 - 9454 Inspectors and Testers, Fabric, Fur and Leather Products Manufacturing

946 Machine Operators and Related Workers in Food, Beverage and Tobacco Processing

- 9461 Process Control and Machine Operators, Food and Beverage Processing
 - 9461.1 Process Control Operators, Food and Beverage Processing
 - 9461.2 Machine Operators, Food and Beverage Processing
- 9462 Industrial Butchers and Meat Cutters, Poultry Preparers and Related Workers
 - 9462.1 Industrial Butchers
 - 9462.2 Industrial Meat Cutters
 - 9462.3 Poultry Preparers
 - 9462.4 Trimmers
- 9463 Fish Plant Workers
 - 9463.1 Fish Plant Machine Operators
 - 9463.2 Fish Plant Cutters and Cleaners
- 9464 Tobacco Processing Machine Operators
- 9465 Testers and Graders, Food and Beverage Processing

947 Printing Machine Operators and Related Occupations

- 9471 Printing Machine Operators
- 9472 Camera, Platemaking and Other Pre-Press Occupations
 - 9472.1 Graphic Arts Camera Operators
 - 9472.2 Cylinder Preparers
 - 9472.3 Film Strippers/Assemblers
 - 9472.4 Platemakers
 - 9472.5 Pre-Press Technicians
 - 9472.6 Scanner Operators
- 9473 Binding and Finishing Machine Operators
 - 9473.1 Binding Machine Operators
 - 9473.2 Finishing Machine Operators
- 9474 Photographic and Film Processors

948 Mechanical, Electrical and Electronics Assemblers

- 9481 Aircraft Assemblers and Aircraft Assembly Inspectors
 - 9481.1 Aircraft Assemblers
 - 9481.2 Aircraft Assembly Inspectors
- 9482 Motor Vehicle Assemblers, Inspectors and Testers
 - 9482.1 Motor Vehicle Assemblers
 - 9482.2 Motor Vehicle Inspectors and Testers
- 9483 Electronics Assemblers, Fabricators, Inspectors and Testers
 - 9483.1 Electronics Assemblers
 - 9483.2 Electronics Fabricators
 - 9483.3 Electronics Inspectors
 - 9483.4 Electronics Testers
- 9484 Assemblers and Inspectors, Electrical Appliance, Apparatus and Equipment Manufacturing
 - 9484.1 Assemblers, Electrical Appliance, Apparatus and Equipment Manufacturing
 - 9484.2 Inspectors and Testers, Electrical Appliance, Apparatus and Equipment Manufacturing

- 9485 Assemblers, Fabricators and Inspectors, Industrial Electrical Motors and Transformers
 - 9485.1 Assemblers, Industrial Electrical Motors and Transformers
 - 9485.2 Electrical Fitters, Industrial Electrical Motors and Transformers
 - 9485.3 Inspectors, Industrial Electrical Motors and Transformers
- 9486 Mechanical Assemblers and Inspectors
 - 9486.1 Mechanical Assemblers
 - 9486.2 Mechanical Inspectors
- 9487 Machine Operators and Inspectors, Electrical Apparatus Manufacturing
 - 9487.1 Machine Operators, Electrical Apparatus Manufacturing
 - 9487.2 Inspectors and Testers, Electrical Apparatus Manufacturing

949 Other Assembly and Related Occupations

- 9491 Boat Assemblers and Inspectors
 - 9491.1 Boat Assemblers
 - 9491.2 Boat Inspectors
- 9492 Furniture and Fixture Assemblers and Inspectors
 - 9492.1 Furniture and Fixture Assemblers
 - 9492.2 Furniture and Fixture Inspectors
- 9493 Other Wood Products Assemblers and Inspectors
 - 9493.1 Other Wood Products Assemblers
 - 9493.2 Other Wood Products Inspectors
- 9494 Furniture Finishers and Refinishers
 - 9494.1 Furniture Finishers
 - 9494.2 Furniture Refinishers
- 9495 Plastics Products Assemblers, Finishers and Inspectors
 - 9495.1 Plastics Products Assemblers and Finishers
 - 9495.2 Plastics Products Inspectors
- 9496 Painters and Coaters, Manufacturing
- 9497 Plating, Metal Spraying and Related Operators
- 9498 Other Assemblers and Inspectors
 - 9498.1 Other Assemblers
 - 9498.2 Other Inspectors

951 Machining, Metalworking, Woodworking and Related Machine Operators

- 9511 Machining Tool Operators
- 9512 Forging Machine Operators
- 9513 Woodworking Machine Operators
- 9514 Metalworking Machine Operators
- 9515 Welding, Brazing and Soldering Machine Operators
 - 9515.1 Welding Machine Operators
 - 9515.2 Brazing and Soldering Machine Operators
- 9516 Other Metal Products Machine Operators
- 9517 Other Products Machine Operators

MAJOR GROUP 96
LABOURERS IN PROCESSING, MANUFACTURING AND UTILITIES

961 Labourers in Processing, Manufacturing and Utilities

- 9611 Labourers in Mineral and Metal Processing
- 9612 Labourers in Metal Fabrication
- 9613 Labourers in Chemical Products Processing and Utilities
- 9614 Labourers in Wood, Pulp and Paper Processing
- 9615 Labourers in Rubber and Plastic Products Manufacturing
- 9616 Labourers in Textile Processing
- 9617 Labourers in Food, Beverage and Tobacco Processing
- 9618 Labourers in Fish Processing
- 9619 Other Labourers in Processing, Manufacturing and Utilities

**The Groups of
the *Career Handbook***

Management Occupations



Management Occupations

MAJOR GROUP 00

SENIOR MANAGEMENT OCCUPATIONS

001 Legislators and Senior Management

- 0011 Legislators
- 0012 Senior Government Managers and Officials
- 0013 Senior Managers – Financial, Communications Carriers and Other Business Services
- 0014 Senior Managers – Health, Education, Social and Community Services and Membership Organizations
- 0015 Senior Managers – Trade, Broadcasting and Other Services, n.e.c.*
- 0016 Senior Managers – Goods Production, Utilities, Transportation and Construction

MAJOR GROUP 01-09

MIDDLE AND OTHER MANAGEMENT OCCUPATIONS

011 Administrative Services Managers

- 0111 Financial Managers
- 0112 Human Resources Managers
- 0113 Purchasing Managers
- 0114 Other Administrative Services Managers

012 Managers in Financial and Business Services

- 0121 Insurance, Real Estate and Financial Brokerage Managers
 - 0121.1 Insurance Managers
 - 0121.2 Real Estate Managers
 - 0121.3 Mortgage Broker Managers
 - 0121.4 Securities Managers
- 0122 Banking, Credit and Other Investment Managers
 - 0122.1 Banking and Other Investment Managers
 - 0122.2 Credit Managers
- 0123 Other Business Services Managers

013 Managers in Communication (Except Broadcasting)

- 0131 Telecommunication Carriers Managers
- 0132 Postal and Courier Services Managers

021 Managers in Engineering, Architecture, Science and Information Systems

- 0211 Engineering Managers
- 0212 Architecture and Science Managers
- 0213 Information Systems and Data Processing Managers

*n.e.c. = not elsewhere classified

031 Managers in Health, Education, Social and Community Services

- 0311 Managers in Health Care
- 0312 Administrators in Post-Secondary Education and Vocational Training
 - 0312.1 Faculty Administrators
 - 0312.2 Registrars
 - 0312.3 Administrators of Vocational Training Schools
- 0313 School Principals and Administrators of Elementary and Secondary Education
 - 0313.1 School Principals
 - 0313.2 Administrators of Elementary and Secondary Education
- 0314 Managers in Social, Community and Correctional Services

041 Managers in Public Administration

- 0411 Government Managers in Health and Social Policy Development and Program Administration
- 0412 Government Managers in Economic Analysis, Policy Development and Program Administration
- 0413 Government Managers in Education Policy Development and Program Administration
- 0414 Other Managers in Public Administration

051 Managers in Art, Culture, Recreation and Sport

- 0511 Library, Archive, Museum and Art Gallery Managers
- 0512 Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts
- 0513 Recreation and Sport Program and Service Directors

061 Sales, Marketing and Advertising Managers

- 0611 Sales, Marketing and Advertising Managers
 - 0611.1 Sales Managers
 - 0611.2 Marketing Managers
 - 0611.3 Advertising Managers
 - 0611.4 Public Relations Managers

062 Managers in Retail Trade

- 0621 Retail Trade Managers

063 Managers in Food Service and Accommodation

- 0631 Restaurant and Food Service Managers
- 0632 Accommodation Service Managers

064 Managers in Protective Service

- 0641 Commissioned Police Officers
- 0642 Fire Chiefs and Senior Firefighting Officers
- 0643 Commissioned Officers, Armed Forces

065 Managers in Other Services

- 0651 Other Services Managers

071 Managers in Construction and Transportation

0711 Construction Managers

0712 Residential Home Builders and Renovators

0713 Transportation Managers

0713.1 Transportation Managers, Operations

0713.2 Transportation Managers, Freight Traffic

072 Facility Operation and Maintenance Managers

0721 Facility Operation Managers

0722 Maintenance Managers

081 Managers in Primary Production (Except Agriculture)

0811 Primary Production Managers (Except Agriculture)

091 Managers in Manufacturing and Utilities

0911 Manufacturing Managers

0912 Utilities Managers

0912.1 Water Supply Managers

0912.2 Electrical Power Distribution Managers

0912.3 Natural Gas Supply Managers

0912.4 Petroleum Product Distribution Managers

0912.5 Water Pollution Control Managers

0912.6 Waste Systems Managers

0012 Senior Government Managers and Officials

Senior Government Managers and Officials plan, organize, direct and control, through middle managers, the major activities of municipal and regional governments, and provincial, territorial and federal departments, boards, agencies and commissions. They establish the direction these organizations take according to policies made by elected representatives and legislative bodies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

018

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, 8+

Examples of Job Titles

Assistant Deputy Minister

Chairperson, Human Rights Commission

Chief Administrative Officer - Regional Municipality

Chief Statistician - Government Services

City Administrator

Deputy Minister

Director General - Government Services

Executive Director - Government Services

High Commissioner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to establish objectives for the organization according to government policy and to formulate and approve programs and procedures
- **Verbal and numerical ability** to advise elected representatives on policy questions and refer any major policy matters to these representatives for final decisions, as well as to make presentations to legislative and other government committees regarding policies, programs and budgets
- **Directive interest** in synthesizing information to approve programs; to recommend, review and approve documents, briefs and reports submitted by middle managers and senior staff members; and to co-ordinate departmental activities with other senior government officials
- **Methodical interest** in ensuring systems and procedures are developed and implemented to provide budgetary controls
- **Social interest** in negotiating with senior government committees to formulate programs and procedures for the organization

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+, 8+

- A university degree or college diploma is usually required.
- A graduate degree in a related field may be required.
- Several years of managerial experience in the public or private sector are required.

Workplaces/Employers

Agencies
Boards
Commissions
Federal departments
Municipal governments
Provincial/territorial governments
Regional governments

Similar Occupations Classified Elsewhere

Legislators (0011)

Middle managers in government
(in 041 *Managers in Public Administration*)

0013 Senior Managers - Financial, Communications Carriers and Other Business Services

Senior Managers in this group plan, organize, direct and control, through middle managers, finance, communication carriers and other business service organizations. They formulate policies, either alone or with a board of directors, that establish the direction these organizations will take.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	1	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

018

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Bank President

Chief Executive Officer (CEO) - Telephone Company

Chief Financial Officer (CFO) - Advertising Agency

Chief Operating Officer - Engineering Firm

Deputy Chief Executive Officer - Life Insurance Company

Executive Director - Credit Union

Executive Vice-President - Real Estate Agency

General Manager - Real Estate Management Company

President - Computing Service Company

Regional Vice-President - Trust Company

Vice-President, Finance - Holding Company

Vice-President, Human Resources - Bank

Vice-President, Marketing - Office Personnel Service

Vice-President, Operations - Satellite Communication Service

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to establish objectives for the organization and to formulate and approve policies and programs
- **Verbal ability** to represent the organization, or to delegate representatives who act on behalf of the organization, in negotiations and other official functions
- **Numerical ability and clerical perception** to allocate funds for the organization's policies and procedures
- **Directive interest** in synthesizing information to authorize the establishment of departments and positions; to approve overall human resources planning; to coordinate the work of regions, divisions or departments; to select and approve the selection of middle managers, directors and other executive staff; and to formulate and approve promotional campaigns

- Methodical interest in organizing the establishment of major departments and associated senior staff positions; and in establishing financial and administrative controls
- Social interest in negotiating with a board of directors to formulate policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, commerce, computer science or other discipline related to the service provided is usually required.
- Several years of experience as a middle manager in financial, communication carriers or other business services are usually required.
- Specialization in a particular functional area or service may occur either through specific university or college training in that area or through previous experience.
- Senior managers in finance usually require a professional accounting designation.

Similar Occupations Classified Elsewhere

Managers in Communication (Except Broadcasting) (013)

Managers in Engineering, Architecture, Science and Information Systems (021)

Managers in Financial and Business Services (012)

Remarks

Senior managers in this group may specialize in areas such as finance, marketing or human resources or in a particular service area.

The boundaries of this group are defined by the Standard Industrial Classification (SIC). Included are senior managers in communication carriers, finance and insurance, real estate and business services.

0014

Senior Managers - Health, Education,
Social and Community Services
and Membership Organizations

Senior Managers in this group plan, organize, direct and control, through middle managers, membership and other organizations that deliver health, educational, social and community services. They formulate policies, either alone or with a board of directors, that establish the direction these organizations will take.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
1	1	2	4	4	3	4	4	4	
INTERESTS									
DMs									
DATA PEOPLE THINGS (DPT)									
018									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
6+, 7+, R									

- Examples of Job Titles
- Chairperson - Arts and Culture Association

Chairperson - Scientific Association

Chief Financial Officer (CFO) - Education Institution

Corporate Controller - Social Services Institution

Executive Director - Health Services Institution

Executive Director - Professional Association

Executive Director - Voluntary Organization

General Manager - Membership Organization

President - Business Association

President - Labour Organization

President - Music Guild

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to establish objectives for the organization and to formulate and approve policies and programs

■ Verbal ability to represent the organization, or to delegate representatives who act on behalf of the organization, in negotiations and other official functions
- Numerical ability to allocate funds for organizational policies and programs

■ Directive interest in synthesizing information to authorize the establishment of departments and positions; to approve overall human resource planning; to co-ordinate the work of regions, divisions or departments; to select and approve the selection of middle managers, directors and other executive staff; and to formulate and approve promotional campaigns
- Methodical interest in establishing and organizing major departments and associated senior staff positions; and establishing financial and administrative controls

■ Social interest in negotiating with a board of directors to formulate policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, hospital administration, finance or other discipline related to the service provided is usually required.
- Several years of experience as a middle manager in a related institution or organization are usually required.
- Specialization in a particular functional area or service may occur either through specific university or college training in that area or through previous experience.
- Senior managers in finance usually require a professional accounting designation.

Workplaces/Employers

Organizations that deliver health, educational, social or community services

Similar Occupations Classified Elsewhere

Administrators in Post-Secondary Education and Vocational Training (0312)

Government Managers in Education Policy Development and Program Administration (0413)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Managers in Health Care (0311)

Managers in Social, Community and Correctional Services (0314)

Other Managers in Public Administration (0414)

School Principals and Administrators of Elementary and Secondary Education (0313)

Remarks

Senior managers in this group may specialize in areas such as finance, marketing, human resources or in a particular service area.

The boundaries of this group are defined by the Standard Industrial Classification (SIC). Included are senior managers in educational services, health and social services and membership organizations.

0015 Senior Managers - Trade, Broadcasting and Other Services, n.e.c.

Senior Managers in this group plan, organize, direct and control, through middle managers, trade, broadcasting and other service companies not elsewhere classified (n.e.c.). They formulate policies, either alone or with a board of directors, that establish the direction these companies will take.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

018

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Chief Executive Officer (CEO) -
Vacation Tour Operation

Chief Financial Officer (CFO) -
Professional Sports Club

Corporate Controller - Restaurant
Chain

Executive Director - Automobile
Association

General Manager - Cleaning Service

President - Department Store

Regional Vice-President - Hotel Chain

Vice-President, Engineering -
Television Broadcasting Service

Vice-President, Finance - Food
Wholesaler

Vice-President, Marketing - Grocery
Store Chain

Vice-President, Operations - Radio
Broadcasting Service

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to the main duties:

- **General learning ability** to establish objectives for the company and to formulate and approve policies and programs
- **Verbal ability** to represent the company, or to delegate representatives who act on behalf of the company, in negotiations and other official functions
- **Numerical ability** to allocate funds to implement company policies and programs
- **Directive interest** in synthesizing information to authorize the establishment of departments and positions; to approve overall human resource planning; to co-ordinate the work of regions, divisions or departments; to select and approve the selection of middle managers, directors and other executive staff; and to formulate and approve promotional campaigns
- **Methodical interest** in organizing the establishment of major departments and associated senior staff positions; and in establishing financial and administrative controls
- **Social interest** in negotiating with a board of directors to formulate policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, finance or other discipline related to the service provided is usually required.
- Several years of experience as a middle manager in trade, broadcasting or other service are usually required.
- Specialization in a particular functional area or service is possible either through specific university or college training in that area or through previous experience.
- Senior managers in finance usually require a professional accounting designation.

Workplaces/Employers

Trade, broadcasting and other service companies

Similar Occupations Classified Elsewhere

Related middle managers are classified in the following unit and minor groups:

Managers in Art, Culture, Recreation and Sport (051)

Managers in Food Service and Accommodation (063)

Managers in Retail Trade (062)

Other Services Managers (0651)

Remarks

Senior managers in this group may specialize in areas such as finance, marketing or human resources or in the selling of a particular product or provision of a particular service.

The boundaries of this group are defined by the Standard Industrial Classification (SIC). Included are senior managers in broadcasting, wholesale trade, retail trade, accommodation and food and beverage service, and other services not elsewhere classified.

0016 Senior Managers - Goods Production, Utilities, Transportation and Construction

Senior Managers in this group plan, organize, direct and control, through middle managers, goods production, utility, transportation and construction companies. They formulate policies that establish the direction the companies will take, either alone or in conjunction with other members of a board of directors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

018

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

- Chief Executive Officer (CEO) - Manufacturing Company
- Chief Financial Officer (CFO) - Urban Transit System
- Corporate Controller - Logging Company
- Executive Vice-President - Railway
- General Manager - Trucking Company
- President - Residential Construction Company
- Publisher
- Regional Vice-President - Petroleum Production Company
- Vice-President, Finance - Mining Company
- Vice-President, Marketing - Airline
- Vice-President, Operations - Electric Power Company
- Vice-President, Sales - Pulp and Paper Manufacturer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to establish company objectives and to formulate and approve policies and programs
- **Verbal ability** to represent the company, or delegate representatives who act on behalf of the company, in negotiations and other official functions
- **Numerical ability** to allocate funds to implement company policies and programs
- **Directive interest** in synthesizing information to authorize the establishment of departments and positions; to approve overall personnel planning; to co-ordinate the work of regions, divisions or departments; to select and approve the selection of middle managers, directors and other executive staff; and to formulate and approve promotional campaigns
- **Methodical interest** in organizing the establishment of major departments and associated senior staff positions and in establishing financial and administrative controls
- **Social interest** in negotiating with members of a board of directors to formulate policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in engineering, business administration, commerce or other discipline related to the company's product is usually required.

- Several years of experience as a middle manager in goods production, utilities, transportation or construction are usually required.

- Specialization in a particular functional area or product may occur either through specific university or college training in that area or through previous experience.
- Senior managers in finance usually require a professional accounting designation.

Workplaces/Employers

Goods production, utility, transportation and construction companies

Similar Occupations Classified Elsewhere

Managers in Construction and Transportation (071)

Managers in Manufacturing and Utilities (091)

Primary Production Managers (Except Agriculture) (0811)

Remarks

Senior managers in this group may specialize in areas such as finance, marketing or human resources or in a particular product area.

The boundaries of this group are defined by the Standard Industrial Classification (SIC). Included are senior managers in fishing, logging and forestry; mining, quarrying and oil wells; manufacturing; printing and publishing; construction; transportation and storage; and utilities.

0111 Financial Managers

Financial Managers plan, organize, direct and control the operation of financial departments, and develop and implement the financial policies and systems of establishments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	1	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Controller

Director of Accounting

Manager, Financial Control

Manager, Financial Planning and Analysis

Manager, Internal Audit

Treasurer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability and clerical perception** to develop and implement the financial systems and procedures of establishments and to evaluate financial reporting systems, accounting procedures and investment activities
- **Verbal and numerical ability** to prepare financial statements, estimates, summaries and other financial analyses and management reports
- **Directive interest** in co-ordinating information to plan, organize, direct and control the operations of accounting, audit and other financial departments; and in recruiting staff and overseeing training programs and co-ordinating the preparation of various financial statements and reports
- **Methodical interest** in making recommendations to senior managers for changes to procedures, operating systems, budgets and other financial control functions
- **Social interest** in negotiating with senior management to arrive at decisions in the development of financial policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, economics, commerce or a related field *and* completion of company, or other, management training program are usually required.
- Several years of experience in accounting, auditing, budgeting, financial planning and analysis or other financial activity are required.
- Accounting and audit managers may require a recognized accounting designation.

Workplaces/Employers

Financial departments in companies throughout the private sector

Governments

Occupational Options

Progression to senior management positions, such as vice-president of finance, is possible with experience.

Similar Occupations Classified Elsewhere

Banking, Credit and Other Investment Managers (0122)

Senior Managers - Financial, Communications Carriers and Other Business Services (0013)

Managers of accounting and auditing firms (in 0123 *Other Business Services Managers*)

0112 Human Resources Managers

Human Resources Managers plan, organize, direct and control the operations of human resource and personnel departments, and develop and implement policies, programs and procedures regarding human resource planning, recruitment, collective bargaining, training and development, occupational classification, and pay and benefit administration.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	4	4	3	4	4	4

INTERESTS

DSm

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 7+

Examples of Job Titles

Administrator, Human Resources
Compensation Manager
Director, Employment Equity
Director, Human Resources
Director, Labour Relations
Director, Personnel
Human Resources Manager
Industrial Relations Manager
Manager, Occupational Health and Safety
Manager, Staff Training and Development
Pay and Benefits Manager
Personnel Manager
Recruiting Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop and implement labour relation policies and programs and to administer employee development, language training and health and safety programs
- **Verbal and numerical ability** to organize and conduct employee information meetings on employment policies, benefits and compensation
- **Directive interest in co-ordinating** information to plan, organize, direct and control the operation of human resource and personnel departments, and to oversee the classification and rating of occupations; and in co-ordinating internal and external training and recruiting activities
- **Social interest in negotiating** with other departmental managers to plan human resource requirements; and in advising and assisting other departmental managers on interpreting and administering personnel policies and programs, and in negotiating collective agreements
- **Methodical interest** in developing and implementing labour relation procedures

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 7+

- A bachelor's degree in a field related to personnel management, such as business administration, industrial relations, commerce or psychology
or
completion of a professional development program in personnel administration is required.
- Several years of experience as a personnel officer or human resource specialist are required.

Workplaces/Employers

Throughout the private and public sectors

Occupational Options

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Specialists in Human Resources
(1121)

0113 Purchasing Managers

Purchasing Managers plan, organize, direct and control the activities of purchasing departments, and develop and implement the purchasing policies of businesses and institutions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Contract Manager
Director, Purchasing
Director, Procurement Operations
Food Purchasing Manager
Manager, Purchasing Contracts
Material Manager
Purchasing Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop purchasing policies and procedures and to evaluate goods and services in relation to quality standards and delivery requirements
- **Verbal ability** to interview, hire and oversee training of staff
- **Numerical ability** to evaluate cost of goods and services and to control purchasing department budgets
- **Directive interest in co-ordinating** information to plan, organize, direct and control the purchasing activities of establishments, and to approve contracts, purchase orders and invoices
- **Methodical interest** in identifying vendors of materials, equipment and supplies, in reviewing and processing claims against suppliers, and in participating in the development of specifications for equipment, products and substitute materials
- **Social interest in negotiating** and overseeing the negotiation of purchase contracts

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- A bachelor's degree or college diploma in business administration, commerce or economics is usually required.
- Purchasing managers responsible for units purchasing specialized materials or business services may require a related university degree or diploma. For example, a bachelor's degree or college diploma in engineering may be required for purchasing managers responsible for purchasing industrial products.
- Several years of experience as a purchasing agent or officer are required.

Workplaces/Employers

Throughout the public and private sectors

Similar Occupations Classified Elsewhere

Purchasing Agents and Officers
(1225)

Retail and Wholesale Buyers (6233)

Warehouse managers (in 0721
Facility Operation Managers)

0114 Other Administrative Services Managers

This group includes managers who plan, organize, direct and control departments responsible for records management, security services, admissions and other administrative services not elsewhere classified. Also included are managers responsible for departments involved in two or more of the following activities: finance, human resources, purchasing computer systems and administrative services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Admissions Director

Arts Administrator

Business Manager, Non-profit Organization

Inventory Control Manager

Manager, Administrative Services

Manager, Security

Manager, Support Services

Records Administrator

Regional Manager, Administration

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of departments providing administrative services
- **Verbal ability** to prepare reports and briefs for management committees evaluating administrative services, and to interview, hire and oversee training for staff
- **Numerical ability** to direct preparation and maintain control of operating budgets
- **Directive interest** in co-ordinating information to direct and control the operations of departments providing a single administrative service or several administrative services; and in advising staff engaged in providing records management, security, finance, purchasing, human resources and other administrative services
- **Methodical interest** in planning and administering budgets for contracts, equipment and supplies
- **Social interest** in negotiating with other managers to formulate and standardize new and revised administrative policies and procedures

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- A bachelor's degree or college diploma in business administration or a related administrative services field is usually required.
- Several years of experience at a professional level in business administration, finance or administrative services are usually required.

Workplaces/Employers

Throughout the public and private sector

Similar Occupations Classified Elsewhere

Facility Operation Managers (0721)

Financial Managers (0111)

Human Resources Managers (0112)

Information Systems and Data Processing Managers (0213)

Maintenance Managers (0722)

Purchasing Managers (0113)

0121.1 Insurance Managers

Insurance Managers plan, organize, direct and control the activities of departments and establishments that provide insurance services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Insurance Claims Manager
Insurance Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of departments and establishments that provide automobile, fire, life, property and other types of insurance services
- **Verbal ability** to prepare management reports and review sales reports
- **Numerical ability and clerical perception** to prepare and oversee the preparation of operating budgets
- **Directive interest in co-ordinating** information to direct and control the operation of departments and establishments providing insurance services
- **Methodical interest** in ensuring that the organization's activities and provision of services are carried out according to established policies and procedures
- **Social interest in negotiating** with other managers, specialists and staff to arrive at decisions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, economics or other related field is usually required.
- Several years of experience within the appropriate industry are usually required.
- Licensing appropriate to the service sold, such as real estate, mortgage, securities or insurance, may be required.

Workplaces/Employers

Insurance companies

Occupational Options

There is no mobility among the different types of managers in the 0121 group.

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Banking, Credit and Other Investment Managers (0122)

Financial Managers (0111)

Other Business Services Managers (0123)

Sales, Marketing and Advertising Managers (0611)

0121.1 Insurance Managers

Insurance Managers plan, organize, direct and control the activities of departments and establishments that provide insurance services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Insurance Claims Manager
Insurance Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of departments and establishments that provide automobile, fire, life, property and other types of insurance services
- **Verbal ability** to prepare management reports and review sales reports
- **Numerical ability and clerical perception** to prepare and oversee the preparation of operating budgets
- **Directive interest in co-ordinating** information to direct and control the operation of departments and establishments providing insurance services
- **Methodical interest** in ensuring that the organization's activities and provision of services are carried out according to established policies and procedures
- **Social interest in negotiating** with other managers, specialists and staff to arrive at decisions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, economics or other related field is usually required.
- Several years of experience within the appropriate industry are usually required.
- Licensing appropriate to the service sold, such as real estate, mortgage, securities or insurance, may be required.

Workplaces/Employers

Insurance companies

Occupational Options

There is no mobility among the different types of managers in the 0121 group.

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Banking, Credit and Other Investment Managers (0122)

Financial Managers (0111)

Other Business Services Managers (0123)

Sales, Marketing and Advertising Managers (0611)

0121.2 Real Estate Managers

Real Estate Managers plan, organize, direct and control the activities of establishments that provide real estate services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Real Estate Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of departments and establishments that buy, sell and lease properties
- **Verbal ability** to prepare and oversee the preparation of sales reports and other documents
- **Numerical ability** to prepare financial estimates for operating budgets
- **Directive interest** in co-ordinating information to direct and control the operation of departments and establishments that buy, sell and lease residential and commercial properties for clients; and in authorizing real estate listings for acceptance by the company
- **Methodical interest** in ensuring that established real estate practices and procedures are maintained in business transactions
- **Social interest** in negotiating with other managers, specialists and staff to resolve problems and arrive at decisions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, economics or other related field is usually required.
- Several years of experience within the appropriate industry are usually required.
- Licensing appropriate to the service sold, such as real estate, mortgage, securities or insurance, may be required.

Workplaces/Employers

Real estate firms

Occupational Options

There is no mobility among the different types of managers in the 0121 group.

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Banking, Credit and Other Investment Managers (0122)

Financial Managers (0111)

Other Business Services Managers (0123)

Sales, Marketing and Advertising Managers (0611)

0121.3 Mortgage Broker Managers

Mortgage Broker Managers plan, organize, direct and control the activities of departments and establishments that provide mortgage services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Mortgage Broker Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of departments and establishments that provide mortgage services
- **Verbal ability** to review legal documents and the terms and conditions of mortgage loans and to prepare reports
- **Numerical ability and clerical perception** to prepare and oversee the preparation of operating budgets and financial statements
- **Directive interest** in co-ordinating information to direct and control the operation of departments and establishments that find lenders and lending institutions on behalf of clients seeking mortgages
- **Methodical interest** in maintaining records and ensuring that the provision of mortgage services adheres to established policies and procedures
- **Social interest** in negotiating the terms and conditions of mortgages with lenders and representatives of lending institutions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, economics or other related field is usually required.
- Several years of experience within the appropriate industry are usually required.
- Licensing appropriate to the service sold, such as real estate, mortgage, securities or insurance, may be required.

Workplaces/Employers

Mortgage brokers

Occupational Options

There is no mobility among the different types of managers in the 0121 group.

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Banking, Credit and Other Investment Managers (0122)

Financial Managers (0111)

Other Business Services Managers (0123)

Sales, Marketing and Advertising Managers (0611)

0121.4 Securities Managers

Securities Managers plan, organize, direct and control the activities of departments and establishments that provide investment services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Bond Manager
Commodities Trading Manager
Financial Brokerage Manager
Investment Manager
Securities Sales Director
Trading Floor Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of departments and establishments that provide investment services
- **Verbal ability** to prepare reports and direct staff in seeking out clients and selling company services
- **Numerical ability and clerical perception** to prepare, and oversee the preparation of, operating budgets and financial statements
- **Directive interest in co-ordinating** information to direct and control the activities of departments and establishments that buy and sell stocks, bonds and other forms of investment on behalf of individual and institutional clients
- **Methodical interest** in maintaining custody of records and in ensuring that the provision of investment services adheres to established policies and practices
- **Social interest in negotiating** with other managers, securities and investment funds specialists and brokers to arrive at decisions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in business administration, economics or other related field is usually required.
- Several years of experience within the appropriate industry are usually required.
- Licensing appropriate to the service sold, such as real estate, mortgage, securities or insurance, may be required.

Workplaces/Employers

Investment dealers

Security and commodity exchanges

Stockbrokers

Occupational Options

There is no mobility among the different types of managers in the 0121 group.

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Banking, Credit and Other Investment Managers (0122)

Financial Managers (0111)

Other Business Services Managers (0123)

Sales, Marketing and Advertising Managers (0611)

0122.1 Banking and Other Investment Managers

Banking and Other Investment Managers plan, organize, direct and control the activities of financial establishments or operational departments within such establishments.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
1	1	2	4	4	3	4	4	4	
INTERESTS									
DMS									
DATA PEOPLE THINGS (DPT)									
118									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
5+, 6+, 7+									

Examples of Job Titles
Bank Manager
Commercial Banking Manager
Corporate Banking Center Manager
Credit Union Manager
Manager, Banking Operations
Manager, Credit Card Center
Operations Manager, Credit Card Company
Trust Company Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of banks, trust companies, credit unions and similar financial institutions or of operational departments within such institutions, and to evaluate the institutional policies and procedures in order to make recommendations for improvement

- **Verbal ability** to promote the sale of loan, investment and other banking services to attract corporate and individual customers, to interview customers and to respond to inquiries
- **Numerical ability and clerical perception** to oversee the preparation of monthly financial and branch progress reports, and to analyze and review loan and credit applications
- **Directive interest in co-ordinating** information to direct and control the branch operations of financial institutions or of departments within such institutions that are responsible for administering personal and

commercial loans, accepting deposits, buying and selling securities, operating investment funds, administering trusts, settling estates and other financial activities; and in approving or rejecting loan and credit applications, and recruiting personnel and overseeing their training

- **Methodical interest** in ensuring that institutional policies and procedures are followed according to established guidelines, and in monitoring credit investigations and processing loan applications
- **Social interest in negotiating** with other managers, representatives of financial and other institutions and staff to arrive at decisions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A university degree or college diploma in business administration, commerce, economics or a related field is usually required.
- Completion of company or other management training programs is usually required.
- Several years of experience within the industry, including supervisory experience, are required.

Workplaces/Employers

Banks

Consumer loan companies

Credit card companies

Credit unions

Mortgage investment companies

Mutual fund investment firms

Trust companies

Occupational Options

Progression to senior management positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Mortgage brokerage managers (in 0121 *Insurance, Real Estate and Financial Brokerage Managers*)

Other Business Services Managers (0123)

Senior Managers - Financial, Communications Carriers and Other Business Services (0013)

0122.2 Credit Managers

Credit Managers plan, organize, direct and control the activities of credit departments in industrial and commercial establishments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Collection Center Manager
Credit and Accounts Manager
Manager, Credit Card Center
Regional Credit Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of credit departments within industrial and commercial organizations
- **Verbal ability** to prepare credit and loan reports
- **Numerical ability and clerical perception** to review and evaluate loan and credit applications, and to establish credit limits
- **Directive interest in coordinating** information to direct and control the activities of credit departments in industrial and commercial organizations; and in approving and rejecting credit applications, and in recruiting personnel and overseeing their training
- **Methodical interest** in administering corporate, commercial and personal loan accounts, in ensuring that credit policies and procedures are followed according to established guidelines, and in ensuring the collection of overdue and delinquent accounts
- **Social interest in negotiating** with other managers and staff to arrive at decisions, and with customers to determine repayment plans and schedules

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A university degree or college diploma in business administration, commerce, economics or a related field is usually required.
- Completion of company or other management training programs is usually required.
- Several years of experience within the industry, including supervisory experience, are required.

Workplaces/Employers

Credit departments in establishments such as:

Car dealerships

Commercial or industrial organizations

Department stores

Insurance companies

Utility companies

Similar Occupations Classified Elsewhere

Mortgage brokerage managers
(in 0121 *Insurance, Real Estate and Financial Brokerage Managers*)

Other Business Services Managers
(0123)

Senior Managers - Financial, Communications Carriers and Other Business Services (0013)

0123 Other Business Services Managers

Managers in this group plan, organize, direct and control the operations of establishments that provide services to business such as management consulting, market research, personnel services, payroll services, advertising services and security services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Accounting Firm Manager
Employment Agency Manager
Legal Firm Manager
Manager, Management Consulting Service
Manager, Market Research Service
Manager, Nursing Registry
Manager, Security Service
Payroll Service Manager
Personnel Agency Manager
Security Service Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of establishments that provide services to business, and to develop policies and procedures
- **Verbal ability** to prepare reports and to interview, hire and provide training for staff
- **Numerical ability and clerical perception** to plan, administer and control operational budgets, and to assist staff with administrative and technical problems
- **Directive interest in co-ordinating** information to direct and control the operation of establishments that provide management consulting, market research, personnel services, payroll services, advertising services and security services to business; and in directing and advising staff in the development and implementation of sales and marketing strategies
- **Methodical interest** in administering and monitoring budgets for client projects, contracts, equipment and supplies
- **Social interest in negotiating** with other managers, specialists and staff to arrive at decisions

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+, R

- A bachelor's degree or college diploma in a field related to the business service provided is usually required.
- Several years of experience in a field related to the business service provided are usually required.
- Licences, certificates or registration may be required for some business services managers. For example, accounting firm managers usually require an accounting certification.

Workplaces/Employers

Firms and agencies providing:

Advertising services

Management consulting

Market research

Payroll services

Personnel services

Security services

Similar Occupations Classified Elsewhere

Architecture and Science Managers
(0212)

Banking, Credit and Other Investment Managers (0122)

Engineering Managers (0211)

Information Systems and Data Processing Managers (0213)

Insurance, Real Estate and Financial Brokerage Managers (0121)

Senior Managers - Financial, Communications Carriers and Other Business Services (0013)

0131 Telecommunication Carriers Managers

Telecommunication Carriers Managers plan, organize, direct and control the operation of telecommunication establishments, departments or facilities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+

Examples of Job Titles

Director, Switching Systems

Facilities Manager,
Telecommunications

Installation Manager,
Telecommunications

Manager, Network Installation

Manager, Telecommunication
Services

Microwave Facilities Manager

Network Operations Manager

Network Services Manager

Operations and Transmission Services
Manager

Regional Manager,
Telecommunications System

Telecommunications Manager

Telephone Company District
Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and numerical ability and clerical perception** to analyze and evaluate telecommunication installations, operations and maintenance, and to make recommendations for improvements
- **Verbal ability** to consult with senior managers to establish policies concerned with the development, operation and maintenance of telecommunication services
- **Directive interest** in coordinating information to plan, organize, direct and control the operations of telecommunication establishments, departments or facilities; to direct and control, through subordinate supervisors and technical staff, telecommunications traffic volume and flow within an assigned area; and to recruit personnel and oversee their training
- **Methodical interest** in ensuring compliance with telecommunication regulations and directives of government regulatory agencies; and in ensuring efficient telecommunication systems operations
- **Social interest** in negotiating with representatives of related and connecting companies to resolve joint telecommunication problems

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+

- A university degree in science, electrical engineering or a related field is usually required.
- Several years of experience in a related technical profession, including supervisory experience, are usually required.

Workplaces/Employers

Telephone, telegraph, satellite and other telecommunication companies

Occupational Options

Progression to senior management positions in telecommunications is possible with experience.

Similar Occupations Classified Elsewhere

Senior Managers - Financial, Communications Carriers and Other Business Services (0013)

Broadcasting managers (in 0512 *Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts*)

0132 Postal and Courier Services Managers

Postal and Courier Services Managers plan, organize, direct and control the activities and operations in postal facilities and establishments that provide courier services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Courier Service Manager
Mail Processing Plant Manager
Manager, Collection and Delivery Operations
Manager, Mail Operations
Messenger Service Manager
Parcel Processing Plant Manager
Post Office Manager
Postal Station Superintendent
Production Control Manager - Postal Service

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to evaluate postal and courier operations and implement changes
- **Verbal ability** to interview, hire and provide training for staff
- **Numerical ability and clerical perception** to prepare budget estimates and administer the expenditures of postal and courier facilities
- **Directive interest in co-ordinating** information to plan, organize, direct and control the activities and operation of divisions within Canada Post, postal facilities and courier service companies
- **Methodical interest** in managing the accurate and expedient movement of mail and parcels through postal and parcel sorting facilities
- **Social interest in negotiating** with supervisors and other staff to co-ordinate their duties

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- A university degree or college diploma is usually required.
- Several years of supervisory experience or operational experience within a postal or courier facility are usually required.

Workplaces/Employers

Canada Post Corporation

Courier companies

Similar Occupations Classified Elsewhere

Postmasters (in 1214 *Supervisors, Mail and Message Distribution Occupations*)

0211 Engineering Managers

Engineering Managers plan, organize, direct and control the activities of engineering departments, services and firms.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	3	3	3	4	4	4

INTERESTS

DIS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, R

Examples of Job Titles

Director, Engineering Research and Development

Electrical Engineering Manager

Engineering Department Manager

Engineering Manager

Manager, Telecommunications Engineering

Production Engineering Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation and activities of engineering departments, services and firms
- **Verbal and numerical ability** to explain proposals and prepare and present engineering reports and findings
- **Spatial and form perception** to review the technical work of departments and project teams; may participate directly in the engineering work of departments and firms
- **Directive interest in co-ordinating** information to direct and control the activities and operations of engineering departments, services and firms; and in assigning and co-ordinating the work of the departments and project teams, and in recruiting personnel and overseeing staff training and development
- **Innovative interest** in developing and implementing policies, standards and procedures for engineering and technical work; may participate directly in designing and developing technical projects
- **Social interest in negotiating** with clients to prepare specifications; and in providing consulting services

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, R

- A bachelor's degree in engineering is required.
- Extensive experience in an engineering discipline, including supervisory experience, is required.
- Registration as a professional engineer by a provincial association of professional engineers is usually required.

Workplaces/Employers

Consulting engineering companies

Private-sector and government establishments

Scientific research companies

Occupational Options

Mobility to other technical managerial positions, or to research or senior management positions, is possible with experience.

Similar Occupations Classified Elsewhere

Architecture and Science Managers (0212)

Construction Managers (0711)

Information Systems and Data Processing Managers (0213)

Manufacturing Managers (0911)

Transportation Managers (0713)

Utilities Managers (0912)

Engineers and supervisors of engineers (in Major Group 21 *Professional Occupations in Natural and Applied Sciences*)

Remarks

In data provided by Statistics Canada, groups 0211 and 0212 are combined to form 0210 *Engineering, Science and Architecture Managers*.

0212 Architecture and Science Managers

Architecture and Science Managers plan, organize, direct and control the activities of architecture, landscape architecture, science and statistical departments, services and firms.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	3	3	3	4	4	4

INTERESTS

DIS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+, R

Examples of Job Titles

Architectural Manager
Director, Agricultural Chemical Branch
Director of Research, Forestry
Director of Research, Manufacturing
Director of Research, Mining
Landscape Architecture Manager
Manager, Life Sciences Program
Manager, Petroleum Geology Department
Research Department Manager
Statistical Service Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities and operation of architecture and science departments, services and firms
- **Verbal and numerical ability** to explain proposals and prepare and present architectural and scientific research reports and findings
- **Spatial and form perception** to review and inspect technical work of departments and project teams; may participate directly in design work and in theoretical and applied scientific work
- **Directive interest** in co-ordinating information to direct and control the activities and operation of architectural and landscape architectural departments, services and firms, and scientific research and development laboratories, quality control departments, services and firms; and in assigning and co-ordinating the technical work of departments and project teams, and in recruiting personnel and overseeing staff training and development
- **Innovative interest** in developing and implementing policies, standards and procedures for architectural, scientific and technical work performed in departments, laboratories and firms
- **Social interest** in negotiating with other managers, specialists and staff to arrive at decisions; may consult and negotiate with clients to prepare specifications

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+, R

- Architecture managers require a degree in architecture and several years of experience as an architect.
- Science and other managers in this group require a master's or doctoral degree in a scientific discipline and several years of experience in a related scientific discipline.
- Landscape architecture managers require a degree in landscape architecture and several years of experience as a landscape architect.
- Architecture managers require a licence as a professional architect
- Landscape architecture managers require a licence as a professional landscape architect

Workplaces/Employers

Architectural firms

Private-sector and government establishments

Scientific research companies

Occupational Options

Progression to senior management positions in the respective fields is possible with experience.

Similar Occupations Classified Elsewhere

*Engineering Managers (0211)**Information Systems and Data Processing Managers (0213)**Primary Production Managers (Except Agriculture) (0811)*

Science professionals and supervisors of science professionals (in Major Group 21 *Professional Occupations in Natural and Applied Sciences*)

Remarks

In data provided by Statistics Canada, groups 0211 and 0212 are combined to form 0210 *Engineering, Science and Architecture Managers*.

0213 Information Systems and Data Processing Managers

Information Systems and Data Processing Managers plan, organize, direct and control the activities of computerized information systems and electronic data processing (EDP) departments and companies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	2	3	3	3	4	4	4

INTERESTS

DIS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+

Examples of Job Titles

Computer Systems Manager

Data Center Manager

Data Processing Director

Director, Management Information Systems (MIS)

EDP Manager

Information Systems Manager

Manager, Data Processing and Systems Analysis

Systems Development Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of information systems and electronic data processing (EDP) departments and companies
- **Verbal ability** to prepare and present reports and other documents
- **Spatial and form perception** to analyze information system requirements and performance, and to develop and implement new and modified systems
- **Numerical ability** to control budgets and expenditures of departments and companies
- **Directive interest in co-ordinating** information to direct and control activities of information systems and EDP departments and companies; and in recruiting and supervising computer analysts, programmers and other personnel, and in overseeing their professional development and training
- **Innovative interest** in developing and implementing policies and procedures for EDP and computer systems operations and development
- **Social interest in negotiating** with clients to discuss data processing and system requirements and determine specifications

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+

- A bachelor's or master's degree in computer science, business administration, commerce or engineering is usually required.
- Several years of experience in computer programming and systems analysis or in a computer application area, including supervisory experience, are required.

Workplaces/Employers

Throughout the public and private sectors

Similar Occupations Classified Elsewhere

*Computer Programmers (2163)**Computer Systems Analysts (2162)**Record systems analysts (in 1122 Professional Occupations in Business Services to Management)**Computer operator supervisors (in 1211 Supervisors, General Office and Administrative Support Clerks)**Computer services company presidents (in 0013 Senior Managers - Financial, Communications Carriers and Other Business Services)*

0311 Managers in Health Care

Health Care Managers plan, organize, direct and control the delivery of health care services such as diagnosis, treatment, nursing and therapy within institutions that provide health care services.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
2	2	2	4	4	3	4	4	4	
INTERESTS									
DMI									
DATA PEOPLE THINGS (DPT)									
118									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
8+, R									

Examples of Job Titles
Chief of Anaesthesia
Chief of Emergency Medicine
Chief of Medical Staff
Director, Home Care Services
Director, Rehabilitation Services
Director of Clinical Medicine
Director of Dietetics
Director of Laboratory Medicine
Director of Nursing
Director of Occupational Therapy
Director of Physiotherapy
Director of Surgery
Medical Clinic Director
Residential Program Manager, Mental Health Center

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to the main duties:

- **General learning ability** to plan and organize delivery of health care services within departments and establishments, and to develop evaluation systems to monitor quality of health care
- **Verbal ability** to represent departments and establishments at meetings with government officials, the public, the media and other organizations

- **Numerical ability** to plan and control operational budgets of departments and establishments
- **Directive interest in co-ordinating** information to direct and control the delivery of health care services within departments and establishments; and in directing health care supervisors and professionals, and in recruiting health care staff

- **Methodical interest in negotiating** with a board of directors and senior managers to maintain and establish standards of health care; and in monitoring the use of diagnostic services, in-patient beds and facilities to ensure effective use of resources
- **Innovative interest** in developing and implementing plans for new programs, special projects, new material and equipment acquisitions, and future staffing levels for the departments and establishments

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Locations

L1 Regulated inside climate

Employment Requirements

Education/Training

8+, R

- Administrators of departments, such as surgery, clinical medicine or laboratory medicine, are usually required to have the education and training of a specialist physician.

- Administrators of other departments, such as nursing, dietetics or physiotherapy, are usually required to have the education and training of the medical professionals in that department.

- Several years of experience in the relevant profession, including supervisory experience, are usually required.

- Certification in the relevant profession is required.

Workplaces/Employers

Hospitals

Medical clinics

Nursing homes

Occupational Options

There is little or no mobility among departments in different medical specializations.

Progression to senior management positions in health care services is possible with experience.

Similar Occupations Classified Elsewhere

Government Managers in Health and Social Policy Development and Program Administration (0411)

Senior Managers - Health, Education, Social and Community Services and Membership Organizations (0014)

Remarks

Managers in health care specialize in administering the provision of specific health care services such as dietetics, clinical medicine, laboratory medicine, nursing, physiotherapy or surgery.

0312.1 Faculty Administrators

Faculty Administrators manage the academic and related activities of faculties of colleges and universities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8+

Examples of Job Titles

Academic Dean
Community College Dean
Dean, Faculty of Science
Dean of Adult Education
Dean, School of Nursing
Dean, School of Technology
Manager, Business School
Student Activities Dean

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize operational and academic activities of college and university faculties
- **Verbal ability** to advise presidents and rectors of colleges and universities and to recommend curriculum revisions and additions
- **Numerical ability** to plan, administer and control budgets for projects, programs, support services and equipment
- **Directive interest in co-ordinating** information to direct and control academic and operational activities of college and university faculties; and in recommending and approving faculty appointments, in approving course scheduling and in managing, through subordinate staff, activities such as research and curriculum development
- **Methodical interest** in controlling budgets for projects, programs, support services and equipment, in recommending curriculum revisions and additions and in determining scheduling of courses
- **Social interest in negotiating** with other administrators, specialists and subordinates to arrive at decisions, and in participating in activities of various faculty and college committees

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8+

- Faculty administrators require a graduate degree in a field related to the academic faculty and several years of experience as a university professor or college teacher.

Workplaces/Employers

Colleges

Universities

Occupational Options

There is no mobility among the various types of administrators in the 0312 group.

Progression to some senior management positions in education is possible with experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

School Principals and Administrators of Elementary and Secondary Education (0313)

University Professors (4121)

Administrators of non-vocational training schools such as driving schools (in 0651 *Other Services Managers*)

College rectors (in 0014 *Senior Managers - Health, Education, Social and Community Services and Membership Organizations*)

University presidents (in 0014 *Senior Managers - Health, Education, Social and Community Services and Membership Organizations*)

0312.2 Registrars

Registrars manage registration activities and academic-record systems of colleges and universities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+

Examples of Job Titles

Registrar, Community College
University Registrar

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize registration activities and academic-record systems of colleges and universities
- **Verbal ability** to interpret registration policies for faculty and students, and to advise students on types of courses offered
- **Numerical ability** to review and analyze registration statistics for use in formulating policies
- **Directive interest** in **co-ordinating** information to direct and control registration activities and academic-record systems of colleges and universities; and in directing activities of staff and others engaged in compiling information on courses, schedules and requirements for admission and graduation
- **Methodical interest** in administering examinations and issuing official transcripts of grades
- **Social interest** in **negotiating** with faculty officials to develop registration policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+

- Registrars require an undergraduate degree in business administration or a related field and several years of experience in registration administration.

Workplaces/Employers

Colleges

Universities

Occupational Options

There is no mobility among the various types of administrators in this group.

Progression to some senior management positions in education is possible with experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

School Principals and Administrators of Elementary and Secondary Education (0313)

University Professors (4121)

Administrators of non-vocational training schools such as driving schools (in 0651 *Other Services Managers*)

College rectors (in 0014 *Senior Managers - Health, Education, Social and Community Services and Membership Organizations*)

University presidents (in 0014 *Senior Managers - Health, Education, Social and Community Services and Membership Organizations*)

0312.3 Administrators of Vocational Training Schools

Administrators of Vocational Training Schools manage the operations of private vocational schools specializing in trades, technology, business and other vocational subjects.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+

Examples of Job Titles

Academic Dean
Dean of Adult Education
Dean, School of Technology
Manager, Aviation School
Manager, Business School
Manager, Trade School
Student Activities Dean

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of private colleges and institutes specializing in trades, technology and business
- **Verbal and numerical ability** to apply specialized knowledge related to operations of vocational training schools, and to plan budgets for projects, programs, support services and equipment; may teach
- **Directive interest in co-ordinating** information to direct and control activities of private colleges and institutes; and in administering and controlling budgets; may recruit and hire teachers and other staff
- **Methodical interest** in consulting with government regulatory and licensing agencies to ensure programs conform to provincial standards
- **Social interest in negotiating** with other administrators, specialists and subordinates to arrive at decisions and to develop curricula for training programs

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+

- Administrators of vocational training schools usually require an undergraduate degree in business administration
or
expertise in a subject of instruction.

Workplaces/Employers

Private vocational schools

Occupational Options

There is no mobility among the various types of administrators in this group.

Progression to some senior management positions in education is possible with experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

School Principals and Administrators of Elementary and Secondary Education (0313)

University Professors (4121)

Administrators of non-vocational training schools such as driving schools (in 0651 *Other Services Managers*)

College rectors (in 0014 *Senior Managers - Health, Education, Social and Community Services and Membership Organizations*)

University presidents (in 0014 *Senior Managers - Health, Education, Social and Community Services and Membership Organizations*)

0313.1 School Principals

School Principals plan, organize, direct and control the activities of teachers and other staff of elementary and secondary schools.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	4	4	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+, R

Examples of Job Titles

Headmaster, Private School
School Principal
Secondary School Principal
Vice-Principal, School

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to co-ordinate teaching activities by making personnel assignments, determining class sizes and preparing timetables, and to develop programs within limits of authority
- **Verbal ability** to review programs; may teach and recruit and hire teachers and other staff
- **Numerical ability** to prepare and administer institution and program budgets
- **Directive interest** in co-ordinating information to plan, organize, direct and control, through department heads and supervisors, the activities of teachers and support staff; and in directing and co-ordinating school maintenance services and the use of school facilities
- **Methodical interest** in organizing and maintaining procedures for keeping records, and in ensuring that programs conform to school board and provincial standards
- **Social interest** in negotiating with teachers, students and parents on educational and behavioural matters; and in establishing and maintaining relationships with other educational institutions and community organizations regarding educational services

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+, R

- A bachelor's degree in education is required.
- A master's degree in education may be required.
- Several years of experience as a senior teacher or department head are required.
- A teacher's certificate for the province of employment is required.

Workplaces/Employers

Public and private schools

Occupational Options

There is little mobility among institutional settings, for example, between elementary and secondary schools.

Similar Occupations Classified Elsewhere

Administrators in Post-Secondary Education and Vocational Training (0312)

Education Policy Researchers, Consultants and Program Officers (4166)

Government Managers in Education Policy Development and Program Administration (0413)

Senior Managers - Health, Education, Social and Community Services and Membership Organizations (0014)

0313.2 Administrators of Elementary and Secondary Education

Administrators of Elementary and Secondary Education plan, organize, direct and control the academic affairs of school systems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+, R

Examples of Job Titles

- Administrator, Board of Education
- Chief Superintendent, Schools
- Director of Education, Correctional Institution
- Director, School for Hearing Impaired
- District School Superintendent
- Superintendent of Elementary Education
- Superintendent of Secondary Schools
- Superintendent of Special Education

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to evaluate curricula, teaching methods and community participation in programs for school districts, and to revise programs as required
- **Numerical ability** to make recommendations concerning annual operating budgets of school districts
- **Directive interest in co-ordinating** information to plan, organize, direct and control, through school principals, the academic affairs of school districts; and in directing and supervising the recruitment, appointment, training, evaluation and promotion of teachers
- **Methodical interest** in administering programs for the education and training of students
- **Social interest in negotiating** with other administrators, specialists and subordinates to develop programs and arrive at decisions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+, R

- A bachelor's degree in education is required.
- A master's degree in education may be required.
- Several years of experience as a senior teacher or department head are required.

Workplaces/Employers

School boards

Similar Occupations Classified Elsewhere

Administrators in Post-Secondary Education and Vocational Training (0312)

Education Policy Researchers, Consultants and Program Officers (4166)

Government Managers in Education Policy Development and Program Administration (0413)

Senior Managers - Health, Education, Social and Community Services and Membership Organizations (0014)

0314 Managers in Social, Community and Correctional Services

Managers in this group plan, organize, direct and control the programs and activities of social service and community agencies, correctional institutions, counselling departments, labour organizations, professional associations, political parties and non-governmental organizations involved with promoting social issues.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8+

Examples of Job Titles

Administrator, Child Welfare Services
Area Manager, Family Services
Association Director
Children's Aid Society Director
Correctional Institution Director
Detention Center Director
Director, Community Center
Director of Correctional Treatment and Training
Environmental Group Director
Income Maintenance Director
Labour Organization Manager
Membership Services Manager
Political Organization Manager
Prison Warden
Regional Administrator, Social Services
Social Assistance Director
Social Work Director
Trade Association Manager
Volunteer Services Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to the main duties:

- **General learning ability** to plan and organize delivery of social and community service programs, and to establish administrative procedures to meet objectives set by a board of directors and senior management
- **Verbal ability** to prepare reports and briefs for management committees and working groups, to represent the organization for the purposes of government liaison and media relations, and to hire and provide training for staff
- **Numerical ability** to plan, administer and control budgets for programs, equipment and support services
- **Directive interest in co-ordinating** information to direct and control the delivery of social and community service programs such as income maintenance, children's aid and emergency housing services; and in managing the operations and activities of correctional facilities and detention centers; and in directing and advising staff delivering services and programs to the general public, to organizations and to association members

- **Methodical interest** in administering the programs of non-governmental organizations involved with social issues such as health care, human rights, consumer protection, international development and environmental protection; and in administering programs of membership organizations such as political parties, labour organizations, business and professional associations
- **Social interest** in negotiating with members of management committees and working groups when participating in policy development

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training	
8+	

- Managers in social, community and correctional services usually require a master's degree in a social science or administrative discipline and several years of experience in a related occupation, such as a community and social service worker, social or health policy researcher, consultant or program officer, probation or parole officer, or social worker.
- Managers of associations and membership organizations require extensive experience in a related occupation, trade or industry.

Workplaces/Employers

Community agencies
 Correctional institutions
 Counselling departments
 Labour organizations
 Non-governmental organizations involved with promoting social issues
 Political parties
 Professional associations
 Social service agencies

Occupational Options

Progression to senior management positions in social, community and correctional services is possible with additional training and experience.

Similar Occupations Classified Elsewhere

Government Managers in Health and Social Policy Development and Program Administration (0411)

Senior Managers - Health, Education, Social and Community Services and Membership Organizations (0014)

Government Managers in this group plan, organize, direct and control the development and administration of health care policies, social policies and related programs designed to protect and promote the health and social welfare of individuals and communities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, 8+, R

Examples of Job Titles

City Medical Officer of Health

Director, Health Information and Promotion

Director, Housing Policy and Development

Immigration and Settlement Director

Manager, Health Program Operations

Manager, Social Services Planning

Social Services Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to organize departmental units and establish procedures to meet departmental objectives set by senior management
- **Verbal ability** to interview, hire and provide training for staff and to advise senior government managers
- **Numerical ability** to plan budgets for research, administration, support services, equipment and supplies
- **Directive interest** in co-ordinating information to organize and direct committees and working groups to plan, manage and evaluate health and social services projects and programs; and in directing and advising health and social policy researchers, consultants and program officers who conduct research, prepare documents and administer programs for individuals and communities in areas such as health and social services, employment, housing, immigration and labour
- **Innovative interest** in negotiating with management committees and working groups when participating in the development of health and social policies
- **Methodical interest** in administering and controlling budgets for research, administration, support services, equipment and supplies

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education and Training
6+, 7+, 8+, R

For government managers in health policy development and program administration:

- A bachelor's degree or college diploma in health science, hospital administration or public administration
or
a bachelor's degree in social science is required.

- A graduate degree in a health, social science or administrative discipline may be required.
- Several years of experience as a health or social policy researcher, consultant or program officer are usually required.
- For some government managers in health policy development and program administration, certification in the relevant health profession is required. For example, city medical officers of health must be physicians.

For government managers in social policy development and program administration:

- A bachelor's degree or a college diploma in a social science discipline, such as sociology or economics,
or
an administrative discipline, such as public administration, is required.
- A graduate degree in a social science or an administrative discipline may be required.
- Several years experience as a social policy researcher, consultant or program officer is usually required.

Workplaces/Employers

Government departments and agencies

Occupational Options

Progression to senior management positions in the fields of health and social policy is possible with experience.

Similar Occupations Classified Elsewhere

Government Managers in Economic Analysis, Policy Development and Program Administration (0412)

Government Managers in Education Policy Development and Program Administration (0413)

Managers in Health Care (0311)

Managers in Social, Community and Correctional Services (0314)

Other Managers in Public Administration (0414)

Senior Government Managers and Officials (0012)

Government Managers in this group plan, organize, direct and control economic policy, research and programs in government activities such as taxation, international trade, labour markets, transportation and agriculture. They also plan and direct policies and programs to promote industrial and commercial business development in urban and rural areas.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+

Examples of Job Titles

Chief, Economic Analysis
 Chief, Forest Resource Analysis
 Customs Manager
 Director, Business Development
 Director, Economic Development
 Director, Economic Policy Analysis
 Director, Energy Market Analysis
 Director, Excise-Tax Programs
 Director, Farm Products Marketing
 Manager, Grain Market Analysis
 Manager, Revenue Programs
 Manager, Tax Policy Research
 Taxation Manager
 Tourism Development Director
 Trade Development Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to organize departmental units and establish procedures to meet objectives set by senior management
- **Verbal ability** to interview and hire staff, provide advice to senior government managers, and advise economists and other staff who prepare reports
- **Numerical ability** to plan research and administration budgets for projects, support services, equipment and supplies
- **Directive interest** in co-ordinating information to plan, organize, direct and control development of economic policy research projects and economic programs; and in directing the activities of economists, economic development officers and other staff, in organizing and directing committees evaluating departmental and agency projects and programs, and in overseeing training and professional development
- **Innovative interest** in negotiating with members of committees and senior management when participating in development of departmental policies; and in advising economists and other staff who conduct economic research
- **Methodical interest** in advising economists and other staff who administer programs in government activities such as taxation, international trade, labour, transportation and agriculture; and in advising economic development officers and other staff administering programs to promote industrial and commercial business investment in urban and rural areas; and in administering and controlling budgets for projects, support services, equipment and supplies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+

- A bachelor's degree in economics, business administration, commerce or public administration is required.
- A master's degree in economics or a related field may be required.
- Several years of experience as an economist, economic development officer or socio-economic researcher are required.

Workplaces/Employers

Government departments and agencies

Occupational Options

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Economic Development Officers and Marketing Researchers and Consultants (4163)

Economists and Economic Policy Researchers and Analysts (4162)

Financial Managers (0111)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Senior Government Managers and Officials (0012)

Labour policy analysts (in 4164
Social Policy Researchers, Consultants and Program Officers)

0413 Government Managers in Education Policy Development and Program Administration

Government Managers in this group plan, organize, direct and control the development and administration of elementary, secondary and post-secondary education policies and programs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+, R

Examples of Job Titles

Director, Curriculum Development

Director, Education Policy Analysis and Research

Director, School Inspection

Education Director

Manager, Corporate Policy, Ministry of Education

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to organize departmental units and establish procedures to meet objectives set by senior management
- **Verbal ability** to interview, hire and provide training for staff, to provide advice to senior government managers and to advise policy researchers and program officers preparing documents
- **Numerical ability** to plan budgets for projects, programs, support services and equipment
- **Directive interest in co-ordinating** information to organize and direct committees and working groups to plan, manage and evaluate educational projects and programs; and in directing and advising policy researchers and program officers conducting research
- **Innovative interest in negotiating** with members of committees and senior management when participating in the development of educational policy
- **Methodical interest** in administering and controlling budgets, and in advising policy researchers and program officers administering programs for elementary and secondary school systems

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+, R

- A bachelor's degree in education is required.
- A master's degree in a particular educational specialization may be required.
- Several years of combined experience as a school teacher and as a government educational policy researcher, consultant or program officer are usually required.
- A provincial teaching certificate is required.

Workplaces/Employers

Government departments and agencies

Occupational Options

Progression to senior management positions in education is possible with experience.

Similar Occupations Classified Elsewhere

Administrators in Post-Secondary Education and Vocational Training (0312)

Government Managers in Health and Social Policy Development and Program Administration (0411)

School Principals and Administrators of Elementary and Secondary Education (0313)

Senior Government Managers and Officials (0012)

0414 Other Managers in Public Administration

Managers in this group plan, organize, direct and control the development of policies and programs that govern the daily operation of legislatures and other activities unique to government such as intergovernmental affairs and elections.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+

Examples of Job Titles

Administrator, House of Commons

Clerk of the Committee, Legislative Assembly Committee

Director, Election Planning

Director, Federal-Provincial Relations

Director, Intergovernmental Affairs

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to the main duties:

- **General learning ability** to organize governmental units and agencies, and to establish procedures to meet objectives set by senior management
- **Verbal ability** to interview, hire and provide training for staff, to provide advice to senior government managers of legislatures, departments and agencies and to advise staff preparing documents
- **Innovative interest** in **negotiating** with senior managers and committees when participating in the development of policies and programs that concern activities unique to government
- **Numerical ability** to plan research and administration budgets for projects, programs, equipment and supplies
- **Methodical interest** in administering and controlling budgets and in advising staff who provide administrative support
- **Directive interest** in **co-ordinating** information to organize and direct committees and working groups to plan, manage and evaluate projects and programs; and in directing and advising staff conducting research

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
7+

- A bachelor's degree in a social science discipline, law or business administration is required.
- Several years of experience in government policy development, research or program administration, or in a professional occupation in social science, law or business administration are usually required.

Workplaces/Employers

Government departments and agencies
Legislative bodies

Occupational Options

Progression to senior management positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Administrative Services Managers
(011)

Government Managers in Economic Analysis, Policy Development and Program Administration (0412)

Government Managers in Education Policy Development and Program Administration (0413)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Senior Government Managers and Officials (0012)

0511 Library, Archive, Museum and Art Gallery Managers

This group includes managers who plan, organize, direct and control the activities of libraries, archives, museums, art galleries or departments within such institutions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

DMI

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8+

Examples of Job Titles

Archive Director
Art Gallery Manager
Assistant Director of Archives
Chief Librarian
Curator Director
Executive Director, Museum
Historic Sites Administrator
Library Director
Museum Administrator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of libraries, archives, museums and art galleries or technical departments within such institutions
- **Verbal ability** to recruit and provide training for professional, technical and clerical staff, and to further public relations and promotional campaigns
- **Numerical ability** to prepare operating budgets, funding and grant applications and proposals
- **Directive interest** in **co-ordinating** information to direct and control the activities of libraries, archives, museums, art galleries or departments within such institutions; and in implementing public relations and promotional campaigns
- **Methodical interest** in administering budgets, policies and programs; may perform duties of a librarian, archivist or curator in smaller institutions
- **Innovative interest** in **negotiating** with members of boards and committees to develop policies and programs; and in developing public relations and promotional campaigns

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
8+

- Library managers require a graduate degree in library and information science
and
several years of experience as a librarian, including supervisory experience.
- Archive managers require a graduate degree in archival science or history
and
several years of experience as an archivist or in historical research, including supervisory experience.
- Museum and art gallery managers usually require a graduate degree related to the specific collection or a training program in arts administration
and
several years of experience as a curator, conservator or artist, or experience in other related museum and art gallery work.

Workplaces/Employers

Archives
Libraries
Museums
Non-retail art galleries

Occupational Options

There is mobility among library and archive managers and among museum and art gallery managers.

Similar Occupations Classified Elsewhere

Archivists (5113)
Conservators and Curators (5112)
Librarians (5111)

Remarks

Library, archive, museum and art gallery managers may specialize in a specific type of collection.

0512 Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts

Managers in this group plan, organize, direct and control operations within publishing firms, film, theatre and record production companies and broadcasting facilities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

DMi

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Ballet Company Director
Book Publishing Manager
Broadcasting Manager
Copyright Manager, Publishing
Dance Company Director
Editor-in-Chief
Manager, Radio Station
Managing Editor
Opera Company Director
Publications Manager
Radio Programming Manager
Station Manager, Broadcasting
Television Station Manager
Theatre Company Manager
Video Production Company Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to establish procedures in newspaper and publishing firms, in film, theatre, record and video production companies, and in radio and television stations
- **Verbal ability** to liaise with authors, composers, producers and directors and to consult with government regulatory agencies
- **Numerical ability** to prepare and control budgets
- **Directive interest** in co-ordinating information to plan, organize, direct and control operations within publishing firms, film, theatre and record production companies, and in implementing policies, in approving product development and in hiring and supervising staff
- **Methodical interest** in planning and maintaining production schedules for publications, films, broadcasts, and theatre, record and video productions, in controlling budgets and in reviewing programs and policies to ensure that they conform to regulations
- **Innovative interest** in negotiating with company directors and members of the artistic community to initiate the development of articles, books, films, broadcasts, musical recordings and theatre productions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- A university degree or college diploma in communications, broadcasting, journalism or other arts discipline is usually required.
- Several years of experience within the publishing, film production, broadcasting or theatre industry are usually required.

Workplaces/Employers

Film, theatre, record and video production companies

Newspaper, periodical and book publishing firms

Radio stations

Television stations

Similar Occupations Classified Elsewhere

Producers, Directors, Choreographers and Related Occupations (5131)

Senior Managers - Trade, Broadcasting and Other Services, n.e.c. (0015)

Publishers (in 0016 Senior Managers - Goods Production, Utilities, Transportation and Construction)

0513 Recreation and Sport Program and Service Directors

Recreation and Sport Program and Service Directors plan, organize, direct and control the operation of comprehensive recreational and sport programs and services, national and provincial sport-governing agencies and professional athletic teams.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

DMI

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Director of Recreation
Director of Sport Administration
Executive Director, YMCA
Professional Athletic Team Manager
Professional Football Team Manager
Professional Hockey Team Manager
Recreation Director
Sports Association Director
Sports Program Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop long-range plans and manage recreational and sport programs and services and to organize national and provincial training, coaching, officiating and other programs associated with particular sports
- **Verbal ability** to arrange for sponsorships from public and private organizations and to recruit professional coaches and athletes
- **Numerical ability** to prepare budget estimates
- **Directive interest** in co-ordinating information to manage the operation of sport-governing agencies or professional athletic teams; and in providing technical and professional advice on recreational and sports matters and in directing fund-raising drives
- **Methodical interest** in negotiating business contracts; and in administering national and provincial training, coaching, officiating and other sports-related programs
- **Innovative interest** in developing recreational and sport programs and services and in developing policies and procedures to implement programs

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree in recreology, physical education, sports administration or a related field *or* a college diploma in recreation management or sports administration is usually required.
- Several years of experience in an occupation related to recreation and sport administration, consulting or programming are usually required.
- Some directors of recreation may be required to have a municipal recreation director's certificate.
- Executive directors of sport-governing agencies may be required to have coaching certification in a particular sport.

Workplaces/Employers

Community and private recreational organizations

Municipalities

Professional athletic team organizations

Sport-governing agencies

Similar Occupations Classified Elsewhere

*Recreation and Sports Program Supervisors and Consultants (4167)**Coaches (5252)**Sports Officials and Referees (5253)*

0611.1 Sales Managers

Sales Managers plan, organize, direct and control the activities of establishments and departments involved in wholesale, commercial and industrial sales.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	2	4	4	3	4	4	4

INTERESTS

DSI

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Corporate Sales Manager
Regional Sales Manager
Sales and Marketing Manager
Sales Director (Except Retail)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of sales departments and establishments
- **Verbal ability** to evaluate sales reports and review market analyses to determine customer needs, potential volume and competitive operations
- **Numerical ability** to prepare budgets, approve budget expenditures and determine price schedules and discount rates
- **Directive interest in co-ordinating** information to direct and control the activities of sales departments in commercial, industrial, wholesale and other non-retail establishments
- **Social interest in negotiating** with volume purchasers to influence sales; may negotiate with advertising agencies concerning the preparation of sales advertising
- **Innovative interest** in developing sales campaigns to meet company goals

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- Sales managers require a university degree or college diploma in business administration or in a related field with a specialization in sales and several years of experience as a sales representative or in a related occupation.

Workplaces/Employers

Commercial establishments
 Government departments
 Industrial establishments
 Marketing consulting companies
 Public relations consulting companies
 Wholesale establishments

Occupational Options

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications (5124)

Retail Trade Managers (0621)

Retail Trade Supervisors (6211)

Senior Managers - Trade, Broadcasting and Other Services, n.e.c. (0015)

0611.2 Marketing Managers

Marketing Managers plan, organize, direct and control the activities of establishments and departments involved in commercial, industrial and wholesale marketing.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	2	4	4	3	4	4	4

INTERESTS

DSI

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Marketing Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to establish distribution networks for products and services
- **Verbal and numerical ability** to analyze the findings of market research studies
- **Directive interest in co-ordinating** information to control activities of marketing departments and establishments; and in directing marketing strategies
- **Social interest in negotiating** business contracts with organizations seeking marketing services and with market researchers
- **Innovative interest** in initiating market research studies and in assisting with product development

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+

- Marketing managers require a university degree or college diploma in business administration or in a related field with a specialization in marketing and several years of experience as a marketing representative or in a related occupation.

Workplaces/Employers

Commercial establishments
Government departments
Industrial establishments
Marketing consulting companies
Public relations consulting companies
Wholesale establishments

Occupational Options

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications (5124)

Retail Trade Managers (0621)

Retail Trade Supervisors (6211)

Senior Managers - Trade, Broadcasting and Other Services, n.e.c. (0015)

0611.3 Advertising Managers

Advertising Managers plan, organize, direct and control the activities of establishments and departments involved in commercial, industrial and wholesale advertising.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	2	4	4	3	4	4	4

INTERESTS

DSI

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Advertising Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of firms and departments that develop and implement advertising campaigns
- **Verbal and numerical ability** to evaluate reports concerning the overall effects of advertising programs and to review programs before release
- **Directive interest in co-ordinating** information to control activities of advertising firms and departments, to approve and implement advertising campaigns and to approve contracts for development of advertising services
- **Social interest in negotiating** with senior management and heads of departments to determine advertising needs and budgetary requirements; and in conferring with senior management of advertising media such as billboards, radio, television and magazines
- **Innovative interest** in directing research activities for planning and execution of advertising and sales promotion programs and in co-ordinating the production of new products and packaging with programs and campaigns

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- Advertising managers require a university degree or college diploma in communications, marketing, journalism or in a related field and several years of experience as an advertising officer, public relations officer, communications officer or in a related occupation.

Workplaces/Employers

Commercial establishments
 Government departments
 Industrial establishments
 Marketing consulting companies
 Public relations consulting companies
 Wholesale establishments

Occupational Options

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications
 (5124)

Retail Trade Managers (0621)

Retail Trade Supervisors (6211)

Senior Managers - Trade, Broadcasting and Other Services, n.e.c. (0015)

0611.4 Public Relations Managers

Public Relations Managers plan, organize, direct and control the activities of establishments and departments involved in public relations.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
1	2	2	4	4	3	4	4	4	
INTERESTS									
DSI									
DATA PEOPLE THINGS (DPT)									
118									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
6+, 7+									

Examples of Job Titles
Director, Communications
Director, Public Relations
Fund Raising Campaign Manager
Manager, Media Relations
Promotions Manager

Descriptor Profile		
Main Characteristics Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:		
	<ul style="list-style-type: none">■ General learning ability to plan and organize activities of establishments and departments that develop and implement public relations programs and communication strategies	<ul style="list-style-type: none">■ Verbal and numerical ability to review and evaluate research reports on public attitudes, to oversee the preparation of publicity and information programs and to review company advertising and sales promotion campaigns■ Directive interest in co-ordinating information to manage activities of establishments and departments that develop and implement communication strategies and information programs, publicize activities and events, and maintain media relations on behalf of businesses, governments and other organizations; and in controlling the release and distribution of publicity■ Social interest in negotiating with senior management to develop public relations policies; and in conferring with associates in industrial relations concerning communications programs for employees, and in maintaining relations with media representatives on behalf of companies and other organizations■ Innovative interest in overseeing development of public relations policies, communication strategies, information programs and public awareness campaigns

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- Public relations managers require a university degree or college diploma in public relations, communications, marketing, journalism or in a related field and several years of experience as a public relations officer, communications officer, advertising officer or in a related occupation.

Workplaces/Employers

Commercial establishments

Government departments

Industrial establishments

Marketing consulting companies

Public relations consulting companies

Wholesale establishments

Occupational Options

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications
(5124)

Retail Trade Managers (0621)

Retail Trade Supervisors (6211)

Senior Managers - Trade, Broadcasting and Other Services, n.e.c. (0015)

0621 Retail Trade Managers

Retail Trade Managers plan, organize, direct and control the operations of establishments that sell merchandise and services on a retail basis.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

DMi

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3+, 6+, 7+

Examples of Job Titles

Antique Dealer
Assistant Manager - Retail
Bookstore Manager
Boat Dealer
Car Dealership Manager
Clothing Store Manager
Department Store Manager
Service Station Manager
Sporting Goods Store Manager
Store Manager - Retail
Supermarket Manager
Travel Agency Manager
Variety Store Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of establishments and departments engaged in retail sales, and to determine merchandise and services to be sold
- **Verbal and numerical ability** to study market research and trends to determine consumer demand, potential sales volumes and effect of competitors' operations on sales, and to plan budgets
- **Directive interest** in **co-ordinating** information to manage the operation of establishments and departments engaged in retail sales, authorize budget expenditures, determine staffing requirements and hire, or oversee the hiring of, staff
- **Methodical interest** in locating, selecting and procuring merchandise for resale and in implementing pricing and credit policies
- **Innovative interest** in **negotiating** with members of working groups to develop and implement marketing strategies and pricing and credit policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3+, 6+, 7+

- Completion of secondary school is required.
- A university degree or college diploma in business administration or other field related to the product or service being sold may be required.
- Several years of related retail sales experience at increasing levels of responsibility are usually required.

Workplaces/Employers

Retail sales establishments

May own and operate their own store

Occupational Options

There is some mobility among managers in this group, depending on the product or service.

Similar Occupations Classified Elsewhere

Insurance, Real Estate and Financial Brokerage Managers (0121)

Restaurant and Food Service Managers (0631)

Retail Trade Supervisors (6211)

Sales, Marketing and Advertising Managers (0611)

0631 Restaurant and Food Service Managers

Restaurant and Food Service Managers plan, organize, direct and control the operation of restaurants, bars, cafeterias and other food and beverage services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+

Example of Job Titles

Assistant Manager, Restaurant
Banquet Manager
Bar Manager
Cafeteria Manager
Catering Service Manager
Dining Room Manager
Food Services Manager
Hotel Food and Beverage Service Manager
Restaurant Manager
Restaurateur

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to the main duties:

- **General learning ability** to plan and organize the operation of restaurants, bars, cafeterias and other food and beverage service establishments and to determine types of services to be offered
- **Verbal ability** to resolve customer complaints and recruit staff
- **Numerical ability** to monitor revenues and modify prices
- **Directive interest** in **co-ordinating** information to manage the operation of food and beverage service establishments, implement and modify operational procedures, assign staff duties and oversee staff training
- **Methodical interest** in setting work schedules, monitoring staff performance, controlling inventory and ensuring that health and safety regulations are followed
- **Social interest** in **negotiating** arrangements with suppliers for food and other materials and with clients for catering and use of facilities for banquets and receptions

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+

- Completion of a college or other program related to hospitality or food and beverage management is usually required.
- Several years of experience in the food service sector, including supervisory experience, are required.

Workplaces/Employers

Food and beverage service establishments

Self-employment

Occupational Options

Progression to senior management in food service is possible with experience.

Similar Occupations Classified Elsewhere

Dietitians and Nutritionists (3132)

Food Service Supervisors (6212)

Executive chefs (in 6241 *Chefs*)

Senior managers in food service (in 0015 *Senior Managers - Trade, Broadcasting and Other Services, n.e.c.*)

0632 Accommodation Service Managers

Accommodation Service Managers plan, organize, direct and control the operation of accommodation establishments or of departments within such establishments.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
3	3	3	4	4	3	4	4	4	
INTERESTS									
DMS									
DATA PEOPLE THINGS (DPT)									
118									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
6+, 7+									

Examples of Job Titles
Assistant Manager, Hotel
Bed and Breakfast Operator
Front Desk Manager
Guest House Operator
Hotel Director
Hotel Manager
Motel Manager
Reservations Manager
Seasonal Resort Manager
Ski Resort Manager
Tourist Home Operator

Descriptor Profile		
Main Characteristics		
Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:		
■ General learning ability to plan and organize the operation of accommodation service establishments or departments within such establishments and to develop policies and procedures	■ Numerical ability to prepare budgets	■ Methodical interest in setting work schedules and in monitoring revenues and expenses
■ Verbal ability to resolve customer complaints, to participate in the development of pricing and promotional strategies and to recruit staff	■ Directive interest in co-ordinating information to manage the operation of accommodation establishments or departments within such establishments, to implement policies and procedures, to supervise staff and to oversee staff training	■ Social interest in negotiating with suppliers for the provision of materials and supplies, and with clients for the use of facilities for conventions, banquets, receptions and other functions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- A university degree or college diploma in hotel management or other related discipline is usually required for managers employed by hotel chains or large accommodation establishments.

- Several years of experience within the accommodation industry are usually required and may replace formal educational requirements.

Workplaces/Employers

Accommodation establishments

Hotels

Motels

Resorts

Self-employment

Student residences

Similar Occupations Classified Elsewhere

*Executive Housekeepers (6213)**Facility Operation Managers (0721)**Restaurant and Food Service Managers (0631)**Retail Trade Managers (0621)**Sales, Marketing and Advertising Managers (0611)*

0641 Commissioned Police Officers

Commissioned Police Officers plan, organize, direct and control police force administration and police activities such as maintaining law and order and detecting and preventing crime.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	4	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3+, 7+

Examples of Job Titles

Chief Superintendent
Deputy Police Chief
Harbour Police Chief
Police Chief
Police Lieutenant
Police Superintendent
Railway Police Chief
RCMP Commissioner
Staff Inspector

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of police forces and divisions of police forces and to assess performance of subordinates
- **Verbal ability** to prepare reports and provide briefings to superiors
- **Directive interest** in co-ordinating information to control activities of police forces and policing divisions, to oversee police investigations and to authorize promotions, transfers and disciplinary actions
- **Methodical interest** in implementing police force policies and procedures and in ensuring that procedures are conducted according to laws and regulations
- **Social interest** in negotiating with members of working groups to develop police force policies and procedures

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3+, 7+

- Completion of secondary school is required.

- A university degree in the social sciences or in business administration may be required.

- Several years of experience as a police officer are required.

Workplaces/Employers

Federal governments

Municipal governments

Provincial governments

Similar Occupations Classified Elsewhere

By-law Enforcement and Other Regulatory Officers, n.e.c. (6463)

Police Officers (Except Commissioned) (6261)

Sheriffs and Bailiffs (6461)

Remarks

Commissioned officers in the Ports Canada Police and in the railway police are also included in this group.

0642 Fire Chiefs and Senior Firefighting Officers

Fire Chiefs and Senior Firefighting Officers plan, organize, direct and control firefighting operations and fire prevention activities in fire departments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	4	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+

Examples of Job Titles

Deputy Fire Chief

District Fire Chief

Fire Chief

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of firefighting departments and to plan, direct and co-ordinate firefighting strategies
- **Verbal ability** to represent fire departments in communications with government, the media and the public
- **Directive interest in co-ordinating** information to control the operation of fire departments, to develop and oversee the implementation of fire prevention campaigns and to direct the training of personnel in firefighting methods
- **Methodical interest** in implementing policies and procedures for the operation of municipal fire departments, district fire regions and industrial firefighting services
- **Social interest in negotiating** with members of working groups to develop policies and procedures

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+

- Completion of secondary school is required.
- Completion of a provincial or municipal firefighter's training course is required.
- A minimum of 10 years of experience as a firefighter is usually required before becoming eligible for a senior officer position.

Workplaces/Employers

Federal government

Industrial establishments with firefighting services

Municipal governments

Similar Occupations Classified Elsewhere

Firefighters (6262)

0643 Commissioned Officers, Armed Forces

Commissioned Officers in the armed forces plan, organize and command the activities of personnel in occupations unique to the armed forces such as artillery and infantry units, military intelligence units and air weapons control units. The ranks of commissioned officers range from lieutenant to general.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	4	3	4	4	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1-4*	0-1*	1-3*	1-4*	0-2*	1-4*

ENVIRONMENTAL CONDITIONS (EC)

L1-L4*, H1-H8*, D1-D5*

EDUCATION/TRAINING

5+, 7+

Examples of Job Titles

Air Weapons Control Officer
Armour Officer
Artillery Officer
Infantry Officer
Intelligence Officer (Management)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of military combat units and to develop military procedures based on detailed knowledge of units' capabilities and performance
- **Verbal ability** to prepare reports and provide briefings for superiors
- **Spatial perception** to co-ordinate and direct the activities of military combat units and review performance
- **Directive interest** in co-ordinating information to command activities of military combat units such as armoured, artillery and infantry battalions; and in developing policies and directing training; may command and lead units as part of United Nations' peacekeeping role in foreign countries
- **Methodical interest** in implementing military procedures and policies and in ensuring activities of units are conducted according to military practices
- **Social interest** in supervising subordinates in training; and in assuming responsibility for welfare, morale and discipline of units

Physical Activities

Vision

1 - 4*

Colour Discrimination

0 - 1*

Hearing

1 - 3*

Body Position

1 - 4*

Limb Co-ordination

0 - 2*

Strength

1 - 4*

Environmental Conditions

Location

L1 - L4*

Hazards

H1 - H8*

Discomforts

D1 - H5*

Employment Requirements

Education/Training

5+, 7+

- A university degree is usually required.
- Completion of military training is required.
- Experience as a non-commissioned member of the armed forces and demonstrated leadership ability may replace a university degree.

Workplaces/Employers

Canadian Forces

Occupational Options

Senior ranks, such as colonel, require several years of experience.

Similar Occupations Classified Elsewhere

Occupations Unique to the Armed Forces (6464)

Commissioned officers whose occupations have civilian counterparts are classified with those occupations. For example:

Dental officer - military (in 3113 *Dentists*)

Legal officer - military (in 4112 *Lawyers and Quebec Notaries*)

Military engineering officer, civil (in 2131 *Civil Engineers*)

Pilot - military (in 2271 *Air Pilots, Flight Engineers and Flying Instructors*)

Remarks

Data provided by Statistics Canada for *Commissioned Officers, Armed Forces (0643)* include all commissioned officers. For further information, refer to the Introduction of the NOC.

*All Physical Activities and Environmental Conditions may apply for occupations in this group.

0651 Other Services Managers

This group includes managers of establishments that provide services not elsewhere classified such as dry cleaning, hairdressing and residential cleaning. Managers of schools that provide non-vocational instruction in driving, languages, music, dance, art, cooking and fashion are included in this group.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3+, 5+, 6+

Examples of Job Titles

- Barber Shop Manager
- Car Wash Manager
- Cooking School Manager
- Driving School Manager
- Dry Cleaning Service Manager
- Hairdressing Salon Manager
- Manager, Residential Cleaning Service
- Manager, Septic Tank Service
- Manager, Window Washing Service
- Pest Control Service Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of establishments providing services such as dry cleaning, hairdressing and residential cleaning, and schools providing non-vocational instruction in driving, languages, music, dance, art, cooking and fashion
- **Verbal ability** to respond to inquiries and complaints, resolve problems and hire and train staff
- **Numerical ability** to plan operational budgets
- **Directive interest** in supervising staff; and in establishing policies and procedures for staff and managing the operations of the establishment
- **Methodical interest** in co-ordinating information to plan and control budgets and inventories
- **Social interest** in managing contracts for advertising and marketing strategies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3+, 5+, 6+

- Completion of secondary school is usually required.
- A college diploma or vocational certificate in the subject of instruction may be required.
- One-to-three years of experience in the service being offered are usually required.

Workplaces/Employers

Dry-cleaning services

Hairdressing services

Residential cleaning services

Schools providing non-vocational instruction

Various service establishments

Similar Occupations Classified Elsewhere

Accommodation Service Managers
(0632)*Cleaning Supervisors* (6215)*Executive Housekeepers* (6213)*Other Business Services Managers*
(0123)*Retail Trade Managers* (0621)*Retail Trade Supervisors* (6211)

0711 Construction Managers

Construction Managers plan, organize, direct and control the activities of construction companies, or construction departments within companies, under the direction of general managers and other senior managers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3+, 6+, 7+, R

Examples of Job Titles

Commercial Construction Manager
Construction Manager
Construction Superintendent
General Contractor
Housing Construction Manager
Industrial Construction Manager
Pipeline Construction Manager
Project Manager, Construction
Residential Construction Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of construction companies, or construction departments within companies, and to oversee construction projects
- **Verbal ability** to represent companies on matters such as business services and union contract negotiations, to prepare progress reports, to issue progress schedules to clients and to hire subcontractors and staff
- **Numerical ability** to prepare and submit construction project budget estimates
- **Directive interest in co-ordinating** information to manage construction projects from start to finish according to schedules, specifications and budgets; and in directing purchases of building materials and land acquisitions and in supervising the activities of subcontractors and staff
- **Methodical interest** in preparing contracts, in planning and preparing construction schedules and milestones, in monitoring progress against established schedules and in developing and implementing quality control programs
- **Social interest** in negotiating revisions, changes and additions to contractual agreements with architects, consultants, clients, suppliers and subcontractors

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3+, 6+, 7+, R

- A university degree in civil engineering or a college diploma in construction technology is usually required.
- Several years of experience in the construction industry, including experience as a construction supervisor or field superintendent, are usually required.
- Extensive experience in the construction industry may replace post-secondary education requirements.
- Professional engineering status or construction trade certification may be required by some employers.

Workplaces/Employers

Construction departments of companies outside the construction industry

Residential, commercial and industrial construction companies

Occupational Options

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Residential Home Builders and Renovators (0712)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

0712 Residential Home Builders and Renovators

Residential Home Builders own, operate and manage companies engaged in the construction of new residential homes. Residential Home Renovators own, operate and manage companies that renovate existing residential homes.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	4	4	4	4	4

INTERESTS

DOM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

1+

Examples of Job Titles

Contractor, Home Renovation
Contractor, Residential Homes
Home Builder
Home Renovator
Renovation Contractor
Residential Home Builder

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize activities of residential home building and renovating companies
- **Verbal ability** to consult with customers, architects and engineers regarding plans and specifications and to develop marketing and advertising strategies to promote company products and services
- **Numerical ability** to prepare bids for home construction and renovation projects
- **Spatial perception** to apply specialized knowledge of home construction and renovation methods, procedures and activities
- **Directive interest** in co-ordinating information to manage and control activities of residential home building and renovating companies; and in co-ordinating the activities of subcontractors and implementing marketing and advertising strategies
- **Objective interest** in selecting and employing trade subcontractors to do specialized work such as plumbing, heating and electrical work; may perform carpentry and other trade work during home construction and renovation activities
- **Methodical interest** in negotiating with customers and with architects, engineers, subcontractors and suppliers to plan and prepare work schedules; and in inspecting work performed by subcontractors to ensure quality and conformity with plans and specifications and in preparing and maintaining a directory of suppliers and trade subcontractors

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

1+

- Extensive experience in the home construction industry, including experience as a general supervisor, is usually required for self-employment as a home builder or a home renovator.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

Construction Managers (0711)

Carpentry, electrical and other construction trade contractors (in 721 *Contractors and Supervisors, Trades and Related Workers*)

0713.1 Transportation Managers, Operations

Transportation Managers of Operations plan, organize, direct and control transportation companies such as railways, airlines, bus lines, municipal transit systems, shipping lines and trucking companies, under the direction of a general manager or other senior manager.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4+, 7+, R

Examples of Job Titles

Bus Company Manager
Flight Operations Manager
Marine Superintendent
Superintendent, Rail Operations
Traffic Manager
Transport Department Manager
Transportation Manager
Urban Transit System Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of transportation companies and to set operation policies and standards including those for safety procedures
- **Verbal ability** to prepare reports for senior management
- **Numerical ability** to control company or departmental budgets, including acquisitions
- **Directive interest** in **co-ordinating** information to manage and control the operation of transportation companies; and in overseeing dispatch of vehicles, vessels or aircraft and in recruiting personnel and overseeing their training
- **Methodical interest** in monitoring company and departmental performance, in planning changes to schedules and policies and in ensuring that company procedures comply with transport regulations
- **Social interest** in **negotiating** with workers and senior management to change schedules and policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4+, 7+, R

- A bachelor's degree in business administration or engineering is usually required.
- Several years of experience in transportation operations are usually required, including supervisory experience.
- Extensive experience as a supervisor and operator in a particular transportation mode, such as a pilot, train engineer, vessel master or truck driver, may replace formal education.
- Certification as an operator of a particular mode of transportation, such as commercial pilot, vessel master or truck driver, is usually required.

Workplaces/Employers

Airlines

Bus lines

Municipal transit systems

Railways

Shipping lines

Trucking companies

Occupational Options

There is little or no mobility between transportation managers, operations, and transportation managers, freight traffic.

There is little or no mobility among transportation managers of land, sea and air transportation operations.

Similar Occupations Classified Elsewhere

Airport managers, harbour masters and other managers of transportation facilities (in 0721 *Facility Operation Managers*)

Senior transportation managers (in 0016 *Senior Managers - Goods Production, Utilities, Transportation and Construction*)

0713.2 Transportation Managers, Freight Traffic

Transportation Managers of Freight Traffic plan, organize and direct companies or departments responsible for the transportation and movement of goods under the direction of a general manager or other senior manager.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3+, 6+, 7+

Examples of Job Titles

Freight-Forwarding Manager
Railway Freight Manager
Transportation Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of companies and departments responsible for co-ordinating, arranging and monitoring the transportation and movement of goods, and to develop plans and procedures for handling, transporting and storing dangerous goods
- **Verbal and numerical ability** to arrange for shipping documentation and to control the company or departmental budgets
- **Directive interest in co-ordinating** information to manage and control companies or departments responsible for transportation and movement of goods, to set performance goals and to oversee the setting of service rates; and in recruiting personnel and overseeing their training
- **Methodical interest** in overseeing the scheduling and dispatching of goods and the tracking and tracing of goods in transit, and in monitoring revenue
- **Social interest in negotiating** with carriers, warehouse operators and insurance company representatives for services and preferential rates

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3+, 6+, 7+

- Completion of secondary school is required.
- A college diploma or university degree in business or transportation administration may be required.
- Several years of clerical, operational or administrative experience related to freight traffic are required.

Workplaces/Employers

Freight-forwarding companies

Shipping companies

Transportation companies

Transportation departments of companies in the retail, manufacturing and utilities sectors

Occupational Options

There is little or no mobility between transportation managers, operations, and transportation managers, freight traffic.

There is little or no mobility among transportation managers of land, sea and air transportation operations.

Similar Occupations Classified Elsewhere

Airport managers, harbour masters and other managers of transportation facilities (in 0721 *Facility Operation Managers*)

Senior transportation managers (in 0016 *Senior Managers - Goods Production, Utilities, Transportation and Construction*)

0721 Facility Operation Managers

Facility Operation Managers plan, organize, direct and control commercial, transportation and recreational facilities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Airport Manager
Arena Manager
Canal Superintendent
Convention Center Manager
Facility Operation Manager
Harbour Master
Marina Manager
Recreational Facility Manager
Shopping Mall Manager
Warehouse Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the operation of commercial, transportation and recreational facilities
- **Verbal and numerical ability** to prepare and oversee the preparation of reports and statistics and to plan budgets
- **Directive interest in co-ordinating** information to manage and control the operation of commercial, transportation and recreational facilities, to plan and direct administrative services such as signage, cleaning, maintenance, parking, safety inspections, security and snow removal and to manage operational and maintenance budgets; and in recruiting personnel and overseeing their training
- **Methodical interest** in planning and organizing administrative services and in overseeing the leasing of space and the maintenance and repair of machinery, equipment and electrical and mechanical systems
- **Social interest in negotiating** with working groups to develop marketing strategies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- Completion of a college or university program in business administration or in a discipline related to facility operation and maintenance
or
an equivalent combination of technical training and experience in administration or maintenance is required.
- Five-to-10 years of supervisory experience in facility operations are usually required.

Workplaces/Employers

Airports

Canals

Convention centers

Harbours

Recreation facilities

Shopping centers and malls

Warehouses

Similar Occupations Classified Elsewhere

*Administrative Services Managers (011)**Maintenance Managers (0722)**Building superintendents (in 6663 Janitors, Caretakers and Building Superintendents)**Production operations managers (in 0911 Manufacturing Managers)*

Remarks

In data provided by Statistics Canada, groups 0721 and 0722 are combined to form 0720 *Facility Operation and Maintenance Managers*.

0722 Maintenance Managers

Maintenance Managers plan, organize, direct and control the maintenance departments within commercial, industrial, institutional, recreational and other facilities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

DMs

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Campus Maintenance Manager
Chief, Maintenance Support Services
Head, Facilities Maintenance
Maintenance Manager
Mechanical Superintendent
Plant Maintenance Superintendent
Superintendent, Maintenance and Service

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of maintenance departments and to develop schedules and procedures for safety inspections and preventive maintenance programs
- **Verbal and numerical ability** to implement schedules and plan maintenance budgets
- **Directive interest** in **co-ordinating** information to direct the maintenance and repair of machinery, equipment and electrical and mechanical systems and to co-ordinate cleaning, snow removal and landscaping operations; and in recruiting personnel and overseeing their training
- **Methodical interest** in implementing procedures for safety inspections and preventive maintenance programs and in managing maintenance budgets
- **Social interest** in **negotiating** with suppliers; and in administering contracts for supplies and services

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- Completion of a college or university program in electrical or mechanical engineering or in another discipline related to building maintenance
or
an equivalent combination of technical training and experience in building maintenance is required.
- Several years of supervisory experience in facility maintenance are usually required.

Workplaces/Employers

Airports

Educational institutions

Grain terminals

Harbour operations

Health care institutions

Maintenance and mechanical engineering departments of manufacturing and other industrial establishments

Office buildings

Shopping centers

Sports facilities

Warehouses

Similar Occupations Classified Elsewhere

*Facility Operation Managers (0721)**Building superintendents (in 6663 Janitors, Caretakers and Building Superintendents)*

Remarks

In data provided by Statistics Canada, groups 0721 and 0722 are combined to form 0720 *Facility Operation and Maintenance Managers*.

0811 Primary Production Managers (Except Agriculture)

Primary Production Managers plan, organize, direct and control the operation of establishments in forestry and logging, mining and quarrying, oil and gas drilling, production and servicing, and commercial fishing.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

1+, 7+

Examples of Job Titles

Director of Mining
Forest Operations Manager
Manager, Drilling Operations
Manager, Fishing Operations
Manager, Forestry Operations
Manager, Gas Field Operations
Manager, Oil Well Servicing
Manager, Quarrying
Mine Manager
Operations Manager, Forestry
Shore Captain, Fishing

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and functions as they relate to main duties:

- **General learning ability** to plan and analyze activities in forestry, logging, mining, quarrying and oil and gas operations or in services to logging, mining, oil and gas industries, and in commercial fishing
- **Verbal and numerical ability** to prepare production reports for review by senior management
- **Directive interest in co-ordinating** information to oversee operations and recommend operational changes to senior management to ensure that production quotas and procedures are met; and in hiring personnel and overseeing staff training; may direct other activities such as construction of access roads and temporary living quarters
- **Innovative interest** in evaluating production sites to determine efficiency of personnel, equipment and technologies and in making changes to work schedules and equipment
- **Methodical interest** in **negotiating** with other managers to set production quotas, to plan extraction sites and to develop policies for the removal of raw materials; and in ensuring adherence to safety regulations

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education and Training
1+, 7+

- Forestry managers usually require a bachelor's degree in forestry science or forest engineering.
 - Mining and quarrying managers usually require a bachelor's degree in mining engineering or earth sciences.
 - Oil and gas managers usually require a bachelor's degree in geology, earth sciences or petroleum engineering.
 - Several years of experience in a supervisory occupation in the particular industry are usually required and may replace formal education requirements.
-

Workplaces/Employers

Commercial fishing companies
Forestry and logging companies
Mining and quarrying companies
Oil and gas drilling companies
Production and servicing operations

Occupational Options

Progression to senior management positions in the respective industries is possible with experience.

Similar Occupations Classified Elsewhere

Farmers and Farm Managers (8251)

Fishing Masters and Officers (8261)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

Supervisors, Logging and Forestry (8211)

Supervisors, Mining and Quarrying (8221)

Supervisors, Oil and Gas Drilling and Service (8222)

Directors of research in primary industry (in 0212 *Architecture and Science Managers*)

0911 Manufacturing Managers

Manufacturing Managers plan, organize, direct and control the operation of manufacturing establishments or production departments within manufacturing establishments under the direction of general managers or other senior managers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Automobile Production Manager
Clothing Factory Manager
Dairy Plant Manager
Distillery Manager
Factory Superintendent
Foundry Manager
Manufacturing Manager
Operations Manager, Manufacturing
Paper Mill Manager
Plant Manager, Manufacturing
Printing Plant Manager
Production Manager, Manufacturing
Textile Mill Manager
Tire Plant Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of manufacturing establishments or operation and production departments of manufacturing establishments, and to plan and implement changes to machinery and equipment, production systems and methods of work
- **Verbal ability** to develop production reporting procedures and to train employees in the use of new equipment and production techniques
- **Numerical ability** to plan and manage departmental budgets
- **Directive interest** in co-ordinating information to manage and control the operation of manufacturing establishments or production departments of manufacturing establishments, to direct quality-control inspection systems and to recommend the replacement of machines; and in overseeing employee training
- **Innovative interest** in negotiating with senior managers to develop and implement plans to use materials, labour and equipment efficiently to meet production targets
- **Methodical interest** in developing production schedules and equipment maintenance schedules and in maintaining inventories of raw materials and finished products

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant

Hearing	
2	Verbal interaction

Body Position	
1	Sitting

Limb Co-ordination	
0	Not relevant

Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+

- Completion of a college or university program in engineering or business administration is usually required.
- Five-to-10 years of supervisory experience in manufacturing are required.

Workplaces/Employers

Manufacturing companies

Occupational Options

Progression to senior management positions is possible with experience.

Similar Occupations Classified Elsewhere

Facility Operation Managers (0721)

Maintenance Managers (0722)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

Transportation Managers (0713)

Utilities Managers (0912)

0912.1 Water Supply Managers

Water Supply Managers organize, direct and control water purification and distribution companies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Director, Water Supply
Water Filtration Plant Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of water filtration, purification and pumping operations of water supply and distribution companies
- **Verbal and numerical ability** to prepare reports on water supply and quality and to prepare budget recommendations
- **Directive interest in co-ordinating** information to manage and control water filtration, purification processes and pumping operations, and to develop and implement supervisory policies that provide for continuous service to the public and safety of workers
- **Innovative interest in negotiating** with associates to solve interrelated organizational and technical problems, and with staff to resolve scheduling and work problems; and in evaluating new industrial developments
- **Methodical interest** in scheduling and overseeing maintenance of plant equipment and in maintaining records

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- A bachelor's degree or college diploma in an appropriate discipline, such as water resource technology, is required.
- Several years of experience as a supervisor in a related utility operations department are required.

Workplaces/Employers

Public- and private-sector utilities

Occupational Options

Progression to senior management positions in the utility industry is possible with experience.

Similar Occupations Classified Elsewhere

Maintenance Managers (0722)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

0912.2 Electrical Power Distribution Managers

Electrical Power Distribution Managers plan, organize, direct and control electric power distribution services and utility companies.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
2	2	2	3	3	3	4	4	4	
INTERESTS									
DIM									
DATA PEOPLE THINGS (DPT)									
118									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
6+, 7+, R									

Examples of Job Titles
Director, Distribution Systems (Utilities)
Director, Electrical Power Transmission Operations
Electric Power Plant Manager
Manager, Electric Generating Plant

Descriptor Profile		
<p>Main Characteristics</p> <p>Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:</p>		
	<ul style="list-style-type: none">■ General learning ability to plan and organize the activities of distribution operations providing electricity to residential, commercial and industrial consumers; may plan distribution operations of municipal electric power establishments	<ul style="list-style-type: none">■ Verbal and numerical ability to prepare reports and budget recommendations■ Directive interest in co-ordinating information to manage and control operations of electric power distribution systems including generating stations, transmission stations and distribution networks, and to establish supervisory policies; may direct distribution activities of municipal electric power establishments■ Innovative interest in negotiating with associates in solving interrelated organizational and technical problems; and in evaluating new industrial developments■ Methodical interest in overseeing maintenance of records and upkeep of equipment and structures

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+, R

- A bachelor's degree or college diploma in an appropriate discipline is required. For example, electrical engineering is required for managers of transmission lines.
- Several years of experience as a supervisor in a related utility operations department are required.
- Professional engineer certification is usually required for managers of utility operations involved in the transmission and distribution of electric power.

Workplaces/Employers

Public- and private-sector utilities

Occupational Options

Progression to senior management positions in the utility industry is possible with experience.

Similar Occupations Classified Elsewhere

Maintenance Managers (0722)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

0912.3 Natural Gas Supply Managers

Natural Gas Supply Managers plan, organize, direct and control natural gas distribution services and utility companies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+ R

Examples of Job Titles

Director, Distribution Systems
(Utilities)
Manager, Gas Supply Operations

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of services and utilities delivering gas to residential, commercial and industrial consumers
- **Verbal and numerical ability** to prepare reports and budget recommendations
- **Directive interest in co-ordinating** information to manage and control the operation of service and utility companies delivering gas to consumers and to establish supervisory policies
- **Innovative interest in negotiating** with associates in solving interrelated organizational and technical problems; and in evaluating new industrial developments
- **Methodical interest** in monitoring supply inventories and in controlling the recording of injections and withdrawals

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+ R

- A bachelor's degree or college diploma in an appropriate discipline is required.
- Several years of experience as a supervisor in a related utility operations department are required.
- Professional engineer certification is usually required for managers of utility operations involved in the distribution of natural gas.

Workplaces/Employers

Public- and private-sector utilities

Occupational Options

Progression to senior management positions in the utility industry is possible with experience.

Similar Occupations Classified Elsewhere

Maintenance Managers (0722)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

0912.4 Petroleum Product Distribution Managers

Petroleum Product Distribution Managers plan, organize, direct and control heating-oil distribution companies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Director, Distribution Systems (Utilities)

Manager, Distribution, Refined Petroleum Products

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of companies that distribute heating-oil products to retail distributors and regional storage sites
- **Verbal and numerical ability** to prepare reports and budget recommendations
- **Directive interest** in co-ordinating information to manage and control the operations of heating-oil products distribution companies, and to establish supervisory policies
- **Innovative interest** in negotiating with associates in solving interrelated organizational and technical problems; and in evaluating new industrial developments
- **Methodical interest** in overseeing maintenance of records and upkeep of equipment and structures

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+, R

- A bachelor's degree or college diploma in an appropriate discipline is required.
 - Several years of experience as a supervisor in a related utility operations department are required.
 - Professional engineer certification is usually required for managers of utility operations involved in the distribution of heating oil.
-

Workplaces/Employers

Heating-oil distribution companies
Public- and private-sector utilities

Occupational Options

Progression to senior management positions in the utility industry is possible with experience.

Similar Occupations Classified Elsewhere

Maintenance Managers (0722)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

0912.5 Water Pollution Control Managers

Water Pollution Control Managers plan, organize, direct and control water purification and treatment companies and services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Director of Water Pollution Control
Manager, Sewage Treatment Plant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of sewage treatment plants engaged in water-pollution control, purification and treatment services

- **Verbal and numerical ability** to prepare reports on water quality and budget recommendations
- **Directive interest in co-ordinating** information to manage and control the operation of sewage treatment plants and to establish supervisory policies

- **Innovative interest in negotiating** with associates to solve interrelated organizational and technical problems; and in evaluating new industrial developments
- **Methodical interest** in scheduling and overseeing maintenance of plant equipment and in maintaining records

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+

- A bachelor's degree or college diploma in an appropriate discipline is required.
 - Several years of experience as a supervisor in a related utility operations department are required.
-

Workplaces/Employers

Public- and private-sector utilities

Occupational Options

Progression to senior management positions in the utility industry is possible with experience.

Similar Occupations Classified Elsewhere

Maintenance Managers (0722)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

0912.6 Waste Systems Managers

Waste Systems Managers plan, organize, direct and control the operation of utility companies or services engaged in waste disposal and waste recycling.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

DI:M

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Director of Waste Management
Liquid Waste Facility Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize the activities of utility companies and services that operate solid- and liquid-waste collection and disposal systems
- **Verbal and numerical ability** to prepare reports and budget recommendations
- **Directive interest** in co-ordinating information to manage and control solid- or liquid-waste collection and disposal systems, and to establish supervisory policies
- **Innovative interest** in negotiating with associates in solving interrelated organizational and technical problems; and in evaluating new industrial developments
- **Methodical interest** in training drivers to handle waste materials and in ensuring safe operation of disposal facilities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- A bachelor's degree or college diploma in an appropriate discipline is required.
- Several years of experience as a supervisor in a related utilities operations department are required.

Workplaces/Employers

Public- and private-sector utilities

Occupational Options

Progression to senior management positions in the utility industry is possible with experience.

Similar Occupations Classified Elsewhere

Maintenance Managers (0722)

Senior Managers - Goods Production, Utilities, Transportation and Construction (0016)

**Business, Finance and
Administration Occupations**

Business, Finance and Administration Occupations

MAJOR GROUP 11

PROFESSIONAL OCCUPATIONS IN BUSINESS AND FINANCE

111 Auditors, Accountants and Investment Professionals

- 1111 Financial Auditors and Accountants
 - 1111.1 Financial Auditors
 - 1111.2 Accountants
- 1112 Financial and Investment Analysts
- 1113 Securities Agents, Investment Dealers and Traders
 - 1113.1 Securities Sales Agents and Investment Dealers
 - 1113.2 Traders
- 1114 Other Financial Officers
 - 1114.1 Financial Planners
 - 1114.2 Financial Examiners and Inspectors
 - 1114.3 Financial Investigators
 - 1114.4 Investment Underwriters
 - 1114.5 Trust Officers
 - 1114.6 Mortgage Brokers

112 Human Resources and Business Service Professionals

- 1121 Specialists in Human Resources
- 1122 Professional Occupations in Business Services to Management
 - 1122.1 Management Consultants
 - 1122.2 Advertising and Marketing Consultants

MAJOR GROUP 12

SKILLED ADMINISTRATIVE AND BUSINESS OCCUPATIONS

121 Clerical Supervisors

- 1211 Supervisors, General Office and Administrative Support Clerks
- 1212 Supervisors, Finance and Insurance Clerks
- 1213 Supervisors, Library, Correspondence and Related Information Clerks
- 1214 Supervisors, Mail and Message Distribution Occupations
- 1215 Supervisors, Recording, Distributing and Scheduling Occupations

122 Administrative and Regulatory Occupations

- 1221 Administrative Officers
- 1222 Executive Assistants
- 1223 Personnel and Recruitment Officers
- 1224 Property Administrators
- 1225 Purchasing Agents and Officers
- 1226 Conference and Event Planners

- 1227 Court Officers and Justices of the Peace
 - 1227.1 Court Officers
 - 1227.2 Justices of the Peace
- 1228 Immigration, Unemployment Insurance and Revenue Officers
 - 1228.1 Immigration Officers
 - 1228.2 Unemployment Insurance Officers
 - 1228.3 Customs Officers and Inspectors
 - 1228.4 Excise Tax Revenue Officers

123 Finance and Insurance Administrative Occupations

- 1231 Bookkeepers
- 1232 Loan Officers
- 1233 Insurance Adjusters and Claims Examiners
 - 1233.1 Insurance Adjusters
 - 1233.2 Insurance Claims Examiners
- 1234 Insurance Underwriters
- 1235 Assessors, Valuers and Appraisers
 - 1235.1 Assessors
 - 1235.2 Valuers
 - 1235.3 Appraisers
- 1236 Customs, Ship and Other Brokers
 - 1236.1 Customs Brokers
 - 1236.2 Ship Brokers

124 Secretaries, Records and Transcriptionists

- 1241 Secretaries (Except Legal and Medical)
- 1242 Legal Secretaries
- 1243 Medical Secretaries
- 1244 Court Records and Medical Transcriptionists
 - 1244.1 Court Records
 - 1244.2 Medical Transcriptionists

**MAJOR GROUP 14
CLERICAL OCCUPATIONS**

141 Clerical Occupations, General Office Skills

- 1411 General Office Clerks
- 1412 Typists and Word Processing Operators
 - 1412.1 Typists
 - 1412.2 Word Processing Operators
- 1413 Records and File Clerks
 - 1413.1 Records Clerks
 - 1413.2 File Clerks
 - 1413.3 Health Records Technicians

- 1414 Receptionists and Switchboard Operators
 - 1414.1 Receptionists
 - 1414.2 Hospital Admitting Clerks
 - 1414.3 Medical and Dental Receptionists
 - 1414.4 Switchboard Operators
 - 1414.5 Answering Service Operators

142 Office Equipment Operators

- 1421 Computer Operators
- 1422 Data Entry Clerks
- 1423 Typesetters and Related Occupations
 - 1423.1 Desktop Publishing Operators
 - 1423.2 Markup Persons
 - 1423.3 Typesetting Input Operators
 - 1423.4 Typesetting Output Operators
- 1424 Telephone Operators
 - 1424.1 Telephone Operators
 - 1424.2 Telephone Service Observers

143 Finance and Insurance Clerks

- 1431 Accounting and Related Clerks
- 1432 Payroll Clerks
- 1433 Tellers, Financial Services
- 1434 Banking, Insurance and Other Financial Clerks
 - 1434.1 Bank Clerks
 - 1434.2 Insurance Clerks
 - 1434.3 Other Financial Clerks
- 1435 Collectors

144 Administrative Support Clerks

- 1441 Administrative Clerks
- 1442 Personnel Clerks
- 1443 Court Clerks

145 Library, Correspondence and Related Information Clerks

- 1451 Library Clerks
- 1452 Correspondence, Publication and Related Clerks
 - 1452.1 Classified Advertising Clerks
 - 1452.2 Correspondence Clerks
 - 1452.3 Editorial Assistants and Publication Clerks
 - 1452.4 Proofreaders
 - 1452.5 Readers and Press Clippers
- 1453 Customer Service, Information and Related Clerks
 - 1453.1 Customer Service Clerks in Retail Establishments
 - 1453.2 Customer Service Clerks in Insurance, Telephone, Utility and Similar Companies
 - 1453.3 Information Clerks

- 1454 Survey Interviewers and Statistical Clerks
 - 1454.1 Survey Interviewers
 - 1454.2 Statistical Clerks

146 Mail and Message Distribution Occupations

- 1461 Mail, Postal and Related Clerks
 - 1461.1 Postal Clerks
 - 1461.2 Mail Sorters
 - 1461.3 Mail Room Clerks
- 1462 Letter Carriers
- 1463 Couriers and Messengers

147 Recording, Scheduling and Distributing Occupations

- 1471 Shippers and Receivers
- 1472 Storekeepers and Parts Clerks
- 1473 Production Clerks
- 1474 Purchasing and Inventory Clerks
 - 1474.1 Purchasing Clerks
 - 1474.2 Inventory Clerks
- 1475 Dispatchers and Radio Operators
 - 1475.1 Dispatchers
 - 1475.2 Radio Operators
- 1476 Transportation Route and Crew Schedulers

1111.1 Financial Auditors

Financial Auditors examine and analyze the accounting and financial records of individuals and establishments to ensure that accounting procedures are followed accurately.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	1	4	4	2	4	4	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+, R

Examples of Job Titles

Financial Auditor
Internal Auditor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to examine accounting and financial records of individuals, departments, companies and establishments to ensure accuracy and compliance with established accounting standards, procedures and internal controls
- **Numerical ability and clerical perception** to examine and analyze journal and ledger entries, bank statements, inventories, expenditures, tax returns and other accounting and financial records, documents and systems
- **Innovative interest in co-ordinating** information from financial and accounting records, documents and systems to evaluate operational procedures and financial positions of individuals, departments, companies and other establishments
- **Methodical interest** in conducting field audits of businesses to ensure compliance with provisions of the *Income Tax Act*, *Canada Business Corporations Act* and other statutory requirements
- **Directive interest in consulting** with clients and in making recommendations to improve accounting and management practices; may supervise other auditors
- **Verbal ability** to prepare reports on audit findings

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+, R

- Chartered accountants require a university degree
and
completion of a training program approved by the Institute of Chartered Accountants and several years of on-the-job training
and
accreditation by the Institute of Chartered Accountants.

- Certified general accountants and certified management accountants require completion of secondary school and usually require some post-secondary education related to accounting
and
completion of a training program approved by the Society of Certified General Accountants or Society of Management Accountants and several years of on-the-job training
and
accreditation by the Certified General Accountants Association or the Society of Management Accountants.

- Auditors require education, training and accreditation as indicated for chartered accountants, certified general accountants or certified management accountants
and
some experience as an accountant.

- Auditors may require accreditation by the Institute of Internal Auditors.
- To act as a trustee in bankruptcy proceedings, auditors must hold a licence as a trustee in bankruptcy.
- Licensing by the provincial or territorial governing body is usually required for auditors practising public accounting.

Workplaces/Employers

Auditing firms

Self-employment

Occupational Options

There is limited mobility among the three professional accounting designations (C.A., C.G.A. and C.M.A.).

Progression to auditing or accounting management positions is possible with experience.

Similar Occupations Classified Elsewhere

*Bookkeepers (1231)**Financial Managers (0111)*

Program or other non-financial auditors (in 416 *Policy and Program Officers, Researchers and Consultants*)

1111.2 Accountants

Accountants plan, organize and administer accounting systems for individuals and establishments. Articling students in accounting firms are included in this group.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	1	4	4	2	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+, R

Examples of Job Titles

- Accountant
- Certified Management Accountant (C.M.A.)
- Certified General Accountant (C.G.A.)
- Chartered Accountant (C.A.)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and set up accounting systems for individuals, departments, companies and other establishments
- **Verbal ability** to develop reporting procedures and prepare financial information; may act as a trustee in bankruptcy proceedings
- **Numerical ability and clerical perception** to examine accounting records and prepare financial statements and reports
- **Methodical interest** in administering accounting systems, in examining financial accounts and records and in preparing income tax returns from accounting records
- **Innovative interest in co-ordinating** information to develop cost finding and internal control procedures; and in analyzing financial statements and reports
- **Directive interest** in consulting with clients to provide financial, business and tax advice; may supervise articling students and other accountants

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+, R

- Chartered accountants require a university degree
and
completion of a training program approved by the Institute of Chartered Accountants and several years of on-the-job training
and
accreditation by the Institute of Chartered Accountants.

- Certified general accountants and certified management accountants require completion of secondary school and usually require some post-secondary education related to accounting
and
completion of a training program approved by the Society of Certified General Accountants or Society of Management Accountants and several years of on-the-job training
and
accreditation by the Certified General Accountants Association or the Society of Management Accountants.

- To act as a trustee in bankruptcy proceedings, accountants must hold a licence as a trustee in bankruptcy.

- Licensing by the provincial or territorial governing body is usually required for accountants practising public accounting.

- In Quebec, membership in the professional corporation for accountants is mandatory.

Workplaces/Employers

Accounting firms

Self-employment

Occupational Options

There is limited mobility among the three professional accounting designations (C.A., C.G.A. and C.M.A.).

With experience, accountants may become auditors.

Progression to accounting management positions is possible with experience.

Similar Occupations Classified Elsewhere

Bookkeepers (1231)

Financial Managers (0111)

Program or other non-financial auditors (in 416 *Policy and Program Officers, Researchers and Consultants*)

1112 Financial and Investment Analysts

Financial and Investment Analysts collect and analyze financial marketplace information such as economic forecasts, trading volumes, financial backgrounds of companies, historical performances and future trends of stocks, bonds and other investment instruments to provide financial and investment advice for their companies or their companies' clients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	2	4	4	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

228

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/ TRAINING

7+, R

Examples of Job Titles

Chartered Financial Analyst
Financial Analyst
Financial Consultant
Investment Analyst
Money Market Analyst
Securities Analyst

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to collect and analyze financial and investment information about companies, stocks, bonds and other investments to provide financial consulting services
- **Verbal and numerical ability** to prepare company, industry and economic outlooks, analytical reports, briefing notes and correspondence.
- **Clerical perception** to examine financial and investment information including profiles of companies, stock and bond prices, yields and future trends and other information
- **Methodical interest** in collecting financial and investment information about companies, stocks, bonds and other investments using daily stock and bond reports, economic forecasts, trading volumes, financial periodicals, securities manuals, company financial statements and other financial reports and publications
- **Innovative interest in analyzing** financial and investment information
- **Directive interest in consulting** with clients, senior company officials, pension fund managers, securities agents and associates to provide investment advice and recommendations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, R

- A bachelor's degree in commerce, business administration or economics *and* on-the-job training and industry courses and programs are usually required.
- The Chartered Financial Analyst (CFA) designation, available through a program conducted by the Institute of Chartered Financial Analysts in the United States, may be required by some employers.

Workplaces/Employers

Banks
 Brokerage houses
 Insurance companies
 Investment companies
 Manufacturing firms
 Trust companies
 Underwriting firms
 Utility companies

Occupational Options

Progression to management positions, such as securities manager, is possible with experience.

Similar Occupations Classified Elsewhere

Securities Agents, Investment Dealers and Traders (1113)

Financial planners (in 1114 *Other Financial Officers*)

1113.1 Securities Sales Agents and Investment Dealers

Securities Sales Agents and Investment Dealers buy and sell stocks, bonds, treasury bills, mutual funds and other securities for individual investors, pension-fund managers, banks, trust companies, insurance firms and other establishments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

ISM

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

- Bond Dealer
- Investment Dealer
- Mutual Fund Broker
- Registered Representative, Investments
- Securities Sales Agent
- Stock Broker
- Supervisor, Registered Representatives

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to review financial periodicals, stock and bond reports, business publications and other materials in order to buy and sell securities for investors
- Verbal and numerical ability to provide investment information and advice to clients
- Innovative interest in identifying potential investments for clients
- Social interest in negotiating to buy and sell stocks, bonds, treasury bills, mutual funds and other securities for individual investors, pension-fund managers and companies such as banks, trust companies and insurance firms
- Methodical interest in co-ordinating information to monitor clients' investment portfolios and ensure that investment transactions are carried out according to industry regulations

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction

Body Position	
1	Sitting
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
4, 5, 6, 7, R

- A university degree or college diploma in economics, business or other discipline is usually required.
- Investment, sales or other related industry experience may replace post-secondary education.
- Securities sales representatives require completion of industry investment and sales training programs and completion of the Canadian Securities Course and the Registered Representative Manual Exam offered by the Canadian Securities Institute.
- Specialized courses are also available for securities sales representatives who want to trade in specific investment products such as securities options and futures contracts.
- Licensing by the provincial securities commission in the province of employment is required for securities agents.

Workplaces/Employers

Investment companies
Securities industry
Stock and commodity exchanges
Stock brokerage firms

Occupational Options

Progression to related management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial and Investment Analysts
(1112)

Other Financial Officers (1114)

Financial brokerage managers (in
0121 *Insurance, Real Estate and
Financial Brokerage Managers*)

1113.2 Traders

Traders buy and sell stocks, bonds, commodity futures, foreign currencies and other securities at stock exchanges on behalf of investment dealers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

IMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

Commodities Trader
Floor Trader, Commodity Exchange

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to review investment information in order to buy and sell stocks, bonds, commodity futures, foreign currencies and other securities at stock exchanges on behalf of investment dealers
- Verbal and numerical ability to contact trading departments of other investment firms, pension-fund managers and financial analysts and to complete details of sales on exchange trade tickets
- Innovative interest in developing trading strategies
- Methodical interest in co-ordinating information to monitor market conditions from exchange floor and trading departments of other investment firms
- Social interest in negotiating when buying and selling securities

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, 7, R

- A university degree or college diploma in economics, business or other discipline is usually required.
- Investment, sales or other related industry experience may replace post-secondary education.
- Traders require completion of industry investment and sales training programs and completion of the Canadian Securities Course and the Registered Representative Manual Exam offered by the Canadian Securities Institute.
- Specialized courses are also available for traders who want to trade in specific investment products such as securities options and futures contracts.
- Licensing by the provincial securities commission in the province of employment is required.

Workplaces/Employers

Investment companies

Securities industry

Stock and commodity exchanges

Stock brokerage firms

Occupational Options

Progression to related management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial and Investment Analysts (1112)

Other Financial Officers (1114)

Financial brokerage managers (in 0121 *Insurance, Real Estate and Financial Brokerage Managers*)

1114.1 Financial Planners

Financial Planners provide professional services to assist individuals in identifying and attaining personal financial goals.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

228

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

Financial Consultant
Financial Planner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to identify clients' financial goals and objectives
- **Verbal ability** to outline available services and explain fee structures to clients
- **Numerical ability and clerical perception** to help clients prepare schedules of income and expenses in order to develop statements of net worth
- **Methodical interest** in obtaining information from clients such as bank account records, pension plan and other employee benefit-package information, tax records, insurance policies and related documentation; may also arrange for sale of financial products and investments depending on licence held
- **Innovative interest in analyzing** clients' financial records and in developing financial plans for clients
- **Directive interest in consulting** with clients and making recommendations concerning cash management, insurance coverage, investment planning, retirement and estate planning

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, 7, R

- A bachelor's degree or college diploma in business administration, commerce, economics or a related field is usually required.

- Various training programs and courses are offered by financial institutes and organizations, such as the Canadian Securities Institute, Institute of Chartered Financial Analysts, Investment Funds Institute, Canadian Institute of Financial Planning, Association of Mortgage Brokers and Trust Companies Institute of Canada, and may be required by employers.

- Financial planners who sell regulated financial products and investments, such as annuities, RRSPs and life insurance, are required to be licensed by the appropriate governing body.

Workplaces/Employers

Banks
 Governments
 Investment firms
 Self-employment
 Trust companies

Occupational Options

Progression to financial management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial and Investment Analysts (1112)

Securities Agents, Investment Dealers and Traders (1113)

Economic development officers (in 4163 Economic Development Officers and Marketing Researchers and Consultants)

Economists (in 4162 Economists and Economic Policy Researchers and Analysts)

1114.2 Financial Examiners and Inspectors

Financial Examiners and Inspectors review financial establishments and services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

Examiner, Credit Unions

Inspector, Financial Institutions

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to the main duties:

- **General learning ability** to examine and evaluate operating procedures of financial institutions and establishments and financial service providers
- **Verbal and numerical ability and clerical perception** to examine financial records, policies, agreements and other documents
- **Methodical interest in obtaining** information on the financial practices of banks, trust companies, credit unions, caisses populaires, credit companies, real estate companies, insurance companies, pension funds, securities brokers and other financial services and institutions
- **Innovative interest in analyzing** information on financial practices and procedures to determine compliance with legislation and regulations
- **Directive interest in speaking** with senior officials of financial services and institutions to conduct examinations and reviews; and in ensuring that practices and procedures comply with legislation and regulations

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
4, 5, 6, 7, R

- A bachelor's degree or college diploma in business administration, commerce, economics or a related field is usually required.
- Various training programs and courses are offered by financial institutes and organizations, such as the Canadian Securities Institute, Institute of Chartered Financial Analysts, Investment Funds Institute, Canadian Institute of Financial Planning, Association of Mortgage Brokers and Trust Companies Institute of Canada, and may be required by employers.
- Financial examiners and inspectors may require a recognized accounting designation.

Workplaces/Employers

Banks
Governments
Investment firms
Self-employment
Trust companies

Occupational Options

Progression to financial management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial and Investment Analysts (1112)

Securities Agents, Investment Dealers and Traders (1113)

Economic development officers (in 4163 Economic Development Officers and Marketing Researchers and Consultants)

Economists (in 4162 Economists and Economic Policy Researchers and Analysts)

1114.3 Financial Investigators

Financial Investigators investigate the practices of securities and commodity-futures traders and other financial service providers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7

Examples of Job Titles

Financial Investigator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to investigate and assess ethical conduct of individuals and companies that trade in securities and commodity futures and provide related financial services
- **Verbal and numerical ability and clerical perception** to review securities and commodity-futures laws and financial records, documents and agreements
- **Innovative interest** in analyzing information to determine possible unethical conduct and breaches of securities and commodity-futures laws
- **Methodical interest** in obtaining documentation and information required for conducting investigations
- **Directive interest** in speaking with representatives of companies and individuals to conduct investigations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, 7

- A bachelor's degree or college diploma in business administration, commerce, economics or a related field is usually required.
- Various training programs and courses are offered by financial institutes and organizations, such as the Canadian Securities Institute, Institute of Chartered Financial Analysts, Investment Funds Institute, Canadian Institute of Financial Planning, Association of Mortgage Brokers and Trust Companies Institute of Canada, and may be required by employers.

Workplaces/Employers

Banks

Governments

Investment firms

Self-employment

Trust companies

Occupational Options

Progression to financial management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial and Investment Analysts (1112)

Securities Agents, Investment Dealers and Traders (1113)

Economic development officers (in 4163 Economic Development Officers and Marketing Researchers and Consultants)

Economists (in 4162 Economists and Economic Policy Researchers and Analysts)

1114.4 Investment Underwriters

Investment Underwriters provide services related to the issuing of new stocks, bonds and securities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

218

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7

Examples of Job Titles

Investment Underwriter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the terms and conditions governing the underwriting of stocks, bonds and securities
- **Verbal and numerical ability and clerical perception** to review documentation related to issuing stocks, bonds and other types of securities and to prepare offering prospectus
- **Methodical interest** in obtaining information and documentation related to the underwriting of new issues of stocks, bonds and securities
- **Innovative interest in analyzing** regulations, terms and conditions to underwrite new issues of stocks and bonds and develop information brochures
- **Directive interest in negotiating** with corporations and governments to determine the types and terms of new securities issued

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, 7

- A bachelor's degree or college diploma in business administration, commerce, economics or a related field is usually required.
- Various training programs and courses are offered by financial institutes and organizations, such as the Canadian Securities Institute, Institute of Chartered Financial Analysts, Investment Funds Institute, Canadian Institute of Financial Planning, Association of Mortgage Brokers and Trust Companies Institute of Canada, and may be required by employers.

Workplaces/Employers

Banks

Governments

Investment firms

Self-employment

Trust companies

Occupational Options

Progression to financial management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial and Investment Analysts (1112)

Securities Agents, Investment Dealers and Traders (1113)

Economic development officers (in 4163 Economic Development Officers and Marketing Researchers and Consultants)

Economists (in 4162 Economists and Economic Policy Researchers and Analysts)

1114.5 Trust Officers

Trust Officers administer trusts, direct trust investments and disburse trust funds.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

368

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7

Examples of Job Titles

Estate and Trust Administrator
Trust Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to administer private, corporate and probate trusts and to evaluate assets of probated accounts for beneficiaries, banks and courts
- **Verbal ability** to prepare inventories
- **Numerical ability and clerical perception** to record investment income and disburse trust funds
- **Methodical interest in compiling** information to administer estate, personal, charitable, corporate and other types of trusts
- **Innovative interest** in investing trust funds
- **Directive interest in speaking** with clients to carry out securities transactions and direct trust account investments

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, 7

- A bachelor's degree or college diploma in business administration, commerce, economics or a related field is usually required.
- Various training programs and courses are offered by financial institutes and organizations, such as the Canadian Securities Institute, Institute of Chartered Financial Analysts, Investment Funds Institute, Canadian Institute of Financial Planning, Association of Mortgage Brokers and Trust Companies Institute of Canada, and may be required by employers.

Workplaces/Employers

Banks

Governments

Investment firms

Self-employment

Trust companies

Occupational Options

Progression to financial management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial and Investment Analysts (1112)

Securities Agents, Investment Dealers and Traders (1113)

Economic development officers (in 4163 *Economic Development Officers and Marketing Researchers and Consultants*)

Economists (in 4162 *Economists and Economic Policy Researchers and Analysts*)

1114.6 Mortgage Brokers

Mortgage Brokers provide services related to procuring mortgages.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

368

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

Mortgage Broker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand terms and conditions of mortgages and to apply to lenders and lending institutions for mortgages on behalf of clients
- **Verbal ability** to obtain required information from clients and arrange meetings with lenders and clients
- **Numerical ability and clerical perception** to collect fees based on mortgage amounts and examine surveyors' certificates and legal documents
- **Methodical interest in compiling** information on clients' incomes, liabilities and assets, as well as type, price and condition of properties to be mortgaged; and in preparing mortgage applications
- **Innovative interest** in negotiating mortgages with lenders and officials of lending institutions
- **Directive interest in speaking** with clients to advise them on availability, conditions and terms of mortgages

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
4, 5, 6, 7, R

- A bachelor's degree or college diploma in business administration, commerce, economics or a related field is usually required.

- Various training programs and courses are offered by financial institutes and organizations, such as the Canadian Securities Institute, Institute of Chartered Financial Analysts, Investment Funds Institute, Canadian Institute of Financial Planning, Association of Mortgage Brokers and Trust Companies Institute of Canada, and may be required by employers.

- Mortgage brokers require a real estate licence in Quebec and a mortgage broker licence in Newfoundland, Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia.

Workplaces/Employers

Banks
Governments
Investment firms
Self-employment
Trust companies

Occupational Options

Progression to financial management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial and Investment Analysts
(1112)

Securities Agents, Investment Dealers and Traders (1113)

Economic development officers
(in 4163 *Economic Development Officers and Marketing Researchers and Consultants*)

Economists (in 4162 *Economists and Economic Policy Researchers and Analysts*)

1121 Specialists in Human Resources

Specialists in Human Resources develop, implement and evaluate human resources and labour relations policies, programs and procedures, and advise managers and employees on personnel matters.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

IMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6, 7

Examples of Job Titles

Business Agent, Labour Union
Classification Officer
Classification Specialist
Compensation Research Analyst
Conciliator
Consultant, Human Resources
Employee Relations Officer
Employment Equity Officer
Human Resources Research Officer
Job Analyst
Labour Relations Officer
Mediator
Union Representative
Wage Analyst

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop, implement and evaluate personnel and labour relations policies, programs and procedures
- **Verbal and numerical ability** to research and prepare occupational classifications, job descriptions and salary scales
- **Innovative interest** in researching employee benefit programs and health and safety practices to recommend policy changes and modifications
- **Methodical interest** in co-ordinating information to administer benefits, employment equity and affirmative action programs, and to maintain related records systems; and in co-ordinating employee performance and appraisal programs
- **Social interest** in negotiating collective agreements on behalf of employers or workers; and in mediating labour disputes and grievances, and in advising managers and employees on the interpretation of personnel policies, benefit programs and collective agreements

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, 6, 7

- A university degree or college diploma in a field related to personnel management, such as business administration, industrial relations, commerce or psychology
or
completion of a professional development program in personnel administration is required.
- Some experience in a clerical or an administrative position related to personnel administration may be required.

Workplaces/Employers

Self-employment

Throughout private and public sectors

Occupational Options

Progression to management positions is possible with experience.

Similar Occupations Classified Elsewhere

*Human Resources Managers (0112)**Personnel and Recruitment Officers (1223)**Personnel Clerks (1442)**Professional Occupations in Business Services to Management (1122)**Training officers and instructors (in 4131 College and Other Vocational Instructors)*

1122.1 Management Consultants

Management Consultants provide services to management, such as analyzing the operations, managerial methods and functions of organizations, in order to propose, plan and implement improvements.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	2	4	4	4

INTERESTS

IDS

DATA PEOPLE THINGS (DPT)

228

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8, R

Examples of Job Titles

- Business Management Consultant
- Business Methods Analyst
- Consultant, Organizational Analysis
- Management Analyst
- Organizational Analyst
- Researcher, Organization and Methods
- Senior Consultant, Operations Management

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to plan the reorganization of the operation of establishments

- Verbal ability and clerical perception to review work studies, organization and flow charts, records, reports, manuals and job descriptions
- Innovative interest in analyzing managerial methods and organization of public and private sector establishments; and in conducting research to determine the efficiency and effectiveness of managerial policies and programs
- Directive interest in proposing, planning and implementing improvements to methods, systems and procedures in areas such as operations, human resources and communications; may supervise contracted researchers and clerical staff
- Social interest in consulting with senior officials to provide advice on managerial methods and organization of public and private sector establishments

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7, 8, R

- A bachelor's degree or college diploma in business administration or commerce is usually required.
- A graduate degree in business administration may be required.
- Some establishments may require management consultants to be certified by a provincial management consulting association.

Workplaces/Employers

Management consulting firms

Public- and private-sector organizations

Self-employment

Occupational Options

Progression to senior and managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Economists and Economic Policy Researchers and Analysts (4162)

Financial and Investment Analysts (1112)

Financial Auditors and Accountants (1111)

Industrial and Manufacturing Engineers (2141)

Other Financial Officers (1114)

1122.2 Advertising and Marketing Consultants

Advertising and Marketing Consultants provide services to management such as analyzing advertising needs and developing appropriate advertising plans.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	2	4	4	4

INTERESTS

ISD

DATA PEOPLE THINGS (DPT)

228

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

Advertising Account Executive
Promotion Specialist

Descriptor Profil

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess characteristics of products and services to be promoted
- **Verbal ability and clerical perception** to review publications, obtain information regarding existing market conditions and maintain records of statistical information
- **Innovative interest in analyzing** advertising needs of establishments; and in developing advertising campaigns and in evaluating promotional and marketing results against budgeted sales, costs, profits and effect on future sales
- **Social interest in consulting** with managers of establishments on advertising needs; and in advising on advertising and sales promotion strategies
- **Directive interest in** implementing advertising campaigns for print and electronic media

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7, 8

- A bachelor's degree or college diploma in business administration or commerce is usually required.
- A graduate degree in business administration may be required.

Workplaces/Employers

Advertising agencies

Public- and private-sector organizations

Self-employment

Occupational Options

Progression to senior and managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Economists and Economic Policy Researchers and Analysts (4162)

Financial and Investment Analysts (1112)

Financial Auditors and Accountants (1111)

Industrial and Manufacturing Engineers (2141)

Other Financial Officers (1114)

1211 Supervisors, General Office and Administrative Support Clerks

Supervisors in this group oversee and co-ordinate the activities of workers in the following minor groups: *Clerical Occupations, General Office Skills (141), Office Equipment Operators (142) and Administrative Support Clerks (144).*

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4

Examples of Job Titles

Chief Telephone Operator
Clerical Supervisor
Computer Operators Supervisor
Data Entry Supervisor
File Clerks Supervisor
Health Records Supervisor
Hospital Admitting Clerks Supervisor
Office Clerks Supervisor
Personnel Clerks Supervisor
Records Office Supervisor
Registry Supervisor
Supervisor, Photocopy Unit
Supervisor, Switchboard Operators
Typesetting Supervisor
Typing Supervisor
Word Processing Supervisor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assign and review the work of clerks engaged in typing and word processing, record keeping and filing, operating telephones and switchboards, operating computers, data entry, typesetting and other activities involving general office and administrative skills; may perform the same duties as workers supervised
- **Verbal ability** to prepare progress and other reports
- **Numerical ability and clerical perception** to requisition supplies and materials and to review work prepared by clerks
- **Methodical interest in co-ordinating** the work of clerks and activities with other units and departments; and in submitting progress reports, in ensuring smooth operation of computer systems, equipment and machinery and in arranging for maintenance and repair work
- **Directive interest in supervising** the activities of workers; and in resolving work problems and establishing work schedules and procedures
- **Social interest** in training workers in job duties, safety procedures and company policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4

- Completion of secondary school is required.
- Completion of college courses related to area supervised may be required.
- Experience in the occupation supervised is usually required.

Workplaces/Employers

Public and private sector
organization

Similar Occupations Classified Elsewhere

Supervisors, Finance and Insurance Clerks (1212)

Supervisors, Library, Correspondence and Related Information Clerks (1213)

Supervisors, Mail and Message Distribution Occupations (1214)

Supervisors, Recording, Distributing and Scheduling Occupations (1215)

Office managers (in 1221
Administrative Officers)

1212 Supervisors, Finance and Insurance Clerks

Supervisors in this group oversee and co-ordinate the activities of workers in the following groups: *Accounting and Related Clerks* (1431), *Payroll Clerks* (1432), *Tellers, Financial Services* (1433), *Banking, Insurance and Other Financial Clerks* (1434) and *Collectors* (1435).

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	2	4	4	2	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 6

Examples of Job Titles

Accounts Payable Supervisor
Accounts Receivable Supervisor
Bank Clerk Supervisor
Billing Supervisor
Bookkeeping Supervisor
Collections Supervisor
Credit Supervisor
Head, Billing Unit
Payroll Supervisor
Savings Supervisor
Supervisor, Claims Adjusters
Supervisor of Accounting
Teller Supervisor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assign and review the work of clerks engaged in administering accounts payable and receivable; processing, verifying and recording financial documents and forms; administering payrolls; serving customers in banks, trust companies and other financial institutions; processing, verifying and recording insurance claims and forms; and collecting payments on overdue accounts; may perform the same duties as workers supervised
- **Verbal ability** to prepare progress and other reports
- **Numerical ability and clerical perception** to requisition supplies and materials and to examine and verify the accuracy of work prepared by clerks
- **Methodical interest in co-ordinating** the work of clerks and activities with other units and departments; and in submitting progress reports, in ensuring smooth operation of computer systems and equipment and in arranging for maintenance and repair work
- **Directive interest in supervising** the activities of workers; and in resolving work-related problems, establishing work schedules and procedures, and authorizing routine payments, credits, deposits and withdrawals
- **Social interest** in training workers in job duties and company policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 6

- Completion of secondary school is required.
- Completion of a college program or courses in bookkeeping, accounting or a related subject may be required.
- Experience in the clerical occupation supervised is required.

Workplaces/Employers

Banks

Establishments throughout private and public sectors

Financial institutions

Insurance companies

Similar Occupations Classified Elsewhere

*Financial Managers (0111)**Other Financial Officers (1114)*

1213 Supervisors, Library, Correspondence and Related Information Clerks

Supervisors in this group supervise and co-ordinate the activities of workers in the following groups: *Library Clerks* (1451), *Correspondence, Publication and Related Clerks* (1452), *Customer Service, Information and Related Clerks* (1453) and *Survey Interviewers and Statistical Clerks* (1454).

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	2	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4

Examples of Job Titles

- Advertising Clerk Supervisor
- Correspondence Clerk Supervisor
- Customer Service Supervisor (Except Financial Institutions)
- Information Clerk Supervisor
- Library Clerk Supervisor
- Publication Clerk Supervisor
- Statistical Clerk Supervisor
- Supervisor, Survey Interviewers

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to assign and review the work of clerks engaged in conducting surveys and interviews, collecting and compiling statistics, providing information and customer service, reshelving books and performing other tasks in libraries, writing correspondence and preparing material for translation and publication; may perform the same duties as workers supervised
- Verbal ability to prepare progress and other reports
- Numerical ability and clerical perception to requisition supplies and materials and to verify accuracy of work prepared by clerks
- Methodical interest in co-ordinating the work of clerks and activities with other units and departments; and in submitting progress reports, ensuring the smooth operation of computer systems and equipment, and arranging for maintenance and repair work
- Directive interest in supervising the activities of workers; and in resolving work-related problems and establishing work schedules and procedures
- Social interest in training workers in job duties and company policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4

- Completion of secondary school is usually required.
- Experience in the clerical occupation supervised is usually required.

Workplaces/Employers

Throughout the private and public sectors

Similar Occupations Classified Elsewhere

Librarians (5111)

Library and Archive Technicians and Assistants (5211)

Supervisors, Mail and Message Distribution Occupations (1214)

1214

Supervisors, Mail and Message Distribution Occupations

Supervisors in this group supervise and co-ordinate the activities of workers in the following groups: *Mail, Postal and Related Clerks* (1461), *Letter Carriers* (1462) and *Couriers and Messengers* (1463).

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	2	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4

Examples of Job Titles

- Courier Supervisor
- Letter Carrier Supervisor
- Mail and Postal Clerk Supervisor
- Mail Room Supervisor
- Messenger Supervisor
- Postal Station Supervisor
- Postmaster

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assign and review the work of postal clerks, letter carriers and couriers engaged in collecting, sorting and delivering of mail, parcels and other material; may perform the same duties as workers supervised
- **Verbal ability** to prepare progress and other reports
- **Numerical ability and clerical perception** to requisition supplies and materials
- **Methodical interest in co-ordinating** the work of postal clerks, letter carriers and couriers, and activities with other units and departments; and in submitting progress reports, ensuring the smooth operation of computer systems and equipment, and arranging for maintenance and repair work
- **Directive interest in supervising** the activities of workers; and in resolving work-related problems and establishing work schedules and procedures
- **Social interest** in training workers in job duties, safety procedures and company policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4

- Completion of secondary school is required.
- Experience in the occupation supervised is usually required.

Workplaces/Employers

Canada Post Corporation

Courier companies

Governments

Large corporations

Similar Occupations Classified Elsewhere

Postal and Courier Services Managers
(0132)

Shipping and receiving supervisors
(in 1215 *Supervisors, Recording, Distributing and Scheduling Occupations*)

1215 Supervisors, Recording, Distributing and Scheduling Occupations

Supervisors in this group supervise and co-ordinate the activities of workers in the following groups: *Shippers and Receivers* (1471), *Storekeepers and Parts Clerks* (1472), *Production Clerks* (1473), *Purchasing and Inventory Clerks* (1474), *Dispatchers and Radio Operators* (1475) and *Transportation Route and Crew Schedulers* (1476).

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4

Examples of Job Titles

Flight Crew Scheduling Supervisor
Head Dispatcher
Head Shipper
Inventory Control Supervisor
Parts Supervisor
Production Clerk Supervisor
Ramp Services Supervisor, Airport
Stock Control Supervisor
Supervisor of Receiving
Supply Control Co-ordinator
Tool Crib Supervisor
Traffic Control Supervisor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assign and review the work of clerks engaged in shipping, receiving, storing, distributing and maintaining inventories of materials, parts and products; in processing purchasing transactions; in co-ordinating production work; in dispatching crews; in scheduling transportation crews and routes; in operating airport ramp servicing vehicles; and performing other related activities; may perform the same duties as workers supervised
- **Verbal ability** to prepare progress and other reports
- **Numerical ability and clerical perception** to requisition supplies and materials
- **Methodical interest in co-ordinating** the work of clerks and activities with other units and departments; and in submitting progress reports, ensuring the smooth operation of computer systems, equipment and machinery, and arranging for maintenance and repair work
- **Directive interest in supervising** the activities of workers; and in resolving work-related problems and establishing work schedules and procedures
- **Social interest** in training workers in job duties, safety procedures and company policies

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

4

- Completion of secondary school is usually required.
- Several years of experience in the occupation supervised are usually required.

Workplaces/Employers

Throughout the private and public sectors

Similar Occupations Classified Elsewhere

Supervisors, Mail and Message Distribution Occupations (1214)

1221 Administrative Officers

Administrative Officers oversee and implement administrative procedures, establish work priorities and co-ordinate the acquisition of administrative services such as office space, supplies and security services.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
2	2	2	4	4	3	4	4	4	
INTERESTS									
MDS									
DATA PEOPLE THINGS (DPT)									
138									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
4, 6, 7									

- Examples of Job Titles
- Administrative Officer
 - Administrative Services Co-ordinator
 - Co-ordinator, Office Services
 - Forms Management Officer
 - Liaison Officer
 - Office Administrator
 - Office Manager
 - Planning Officer
 - Requirements Officer
 - Surplus Assets Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to co-ordinate office administrative procedures and to review, evaluate and implement new procedures
- Verbal ability to prepare periodic and special reports, manuals and correspondence

- Numerical ability and clerical perception to assemble data and assist in the preparation of operating budgets
- Methodical interest in co-ordinating office services such as accommodation, relocations, equipment, supplies, forms, disposal of assets, parking, maintenance and security services; and in maintaining inventory and budgetary controls
- Directive interest in supervising and overseeing office administrative procedures; and in establishing work priorities, delegating work to office support staff and in ensuring deadlines are met and procedures followed
- Social interest in planning and arranging for the acquisition of administrative and office services

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
4, 6, 7

- Completion of secondary school is required.
 - A university degree or college diploma in business or public administration may be required.
 - Experience in a senior clerical or an executive secretarial position related to office administration is usually required.
-

Workplaces/Employers

Throughout the private and public sectors

Occupational Options

Progression to administrative service management positions is possible with experience.

Similar Occupations Classified Elsewhere

Administrative Clerks (1441)

Executive Assistants (1222)

Conference and Event Planners (1226)

Property Administrators (1224)

Administrative services managers (in 0114 Other Administrative Services Managers)

1222 Executive Assistants

Executive Assistants co-ordinate administrative procedures, public relations activities, research and analysis for members of legislative assemblies, ministers, deputy ministers, corporate officials and executives, committees and boards of directors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

168

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 7

Examples of Job Titles

Committee Clerk
Corporate Secretary
Executive Assistant
Legislative Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to establish and co-ordinate administrative policies and procedures for officials, committees and boards of directors, and to analyze incoming and outgoing memoranda, submissions and reports
- **Verbal ability** to discuss issues and meet with individuals, special interest groups and others
- **Numerical ability and clerical perception** to conduct research, compile data and prepare summary briefs and reports, and to prepare papers for executives, committees and boards of directors
- **Methodical interest** in preparing agendas and making arrangements for committee, board and other meetings
- **Directive interest** in co-ordinating information to assess and recommend courses of action, and to prepare and oversee the preparation and submission of summary briefs and reports
- **Social interest** in speaking with individuals, special interest groups and others, and to liaise with department and corporate officials and with other organizations and associations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 7

- Completion of secondary school is required.
- A bachelor's degree in public administration, political science or a related discipline is usually required.
- Experience in a related administrative occupation may be required.

Workplaces/Employers

Associations

Corporations

Governments

Similar Occupations Classified Elsewhere

*Administrative Officers (1221)**Conference and Event Planners (1226)**Executive secretaries [in 1241 Secretaries (Except Legal and Medical)]*

1223 Personnel and Recruitment Officers

Personnel and Recruitment Officers identify and advertise job vacancies, recruit candidates and assist in the selection and reassignment of employees.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

SMd

DATA PEOPLE THINGS (DPT)

168

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6, 7

Examples of Job Titles

- Human Resources Officer
- Personnel Officer
- Personnel Selection Officer
- Placement Officer
- Recruitment Officer
- Staffing Analyst
- Staffing Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to identify current and prospective employment vacancies, review candidate inventories and evaluate candidates
- **Verbal ability** to contact potential applicants and arrange interviews and to notify applicants of results of competitions
- **Numerical ability and clerical perception** to participate in selection and examination boards and to screen applications
- **Social interest in speaking** with job applicants to advise them on employment requirements, and to advise managers and employees on staffing policies and procedures
- **Methodical interest** in posting notices and advertisements and in collecting applications
- **Directive interest in co-ordinating** information to recruit graduates of colleges, universities and other educational institutions and in co-ordinating selection and examination boards; may supervise personnel clerks performing filing, typing and record-keeping duties

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, 6, 7

- A university degree or college diploma in a field related to personnel management such as business administration, industrial relations, commerce or psychology
or
completion of a professional development program in personnel administration is usually required.
- Some experience in a clerical or an administrative position related to personnel administration may be required.

Workplaces/Employers

Throughout the private and public sectors

Occupational Options

Progression to specialist and management positions is possible with experience.

Similar Occupations Classified Elsewhere

Human Resources Managers (0112)

Personnel Clerks (1442)

Specialists in Human Resources (1121)

Training officers and instructors
(in 4131 *College and Other Vocational Instructors*)

1224 Property Administrators

Property Administrators perform administrative duties and co-ordinate activities related to the management and rental of real estate on behalf of property owners.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4
INTERESTS								
MDs								
DATA PEOPLE THINGS (DPT)								
368								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	0	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
3+, 4+, 5+								

Examples of Job Titles

- Accommodation Officer
- Government Property Manager
- Leasing Co-ordinator, Property
- Property Administrator
- Property Manager
- Property Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to approve rentals of properties on behalf of property owners and to administer contracts for provision of property services such as cleaning, maintenance, security and alarm systems
- **Verbal and numerical ability** to prepare contracts and reports
- **Clerical perception** to ensure that rental terms agreements are met
- **Methodical interest in compiling** and maintaining records on expenses and income, and in monitoring progress and cost of repairs, maintenance and renovations
- **Directive interest** in co-ordinating repairs, maintenance and renovations and in ensuring that staff respond to calls from clients and tenants; may hire and supervise rental agents, property clerks, building superintendents and other support staff performing operational, clerical and maintenance duties
- **Social interest in speaking** with contractors providing property services and in negotiating rentals

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3+, 4+, 5+

- Completion of secondary school is required.
- Completion of training courses or a vocational program in property management or real estate may be required.
- Several years of administrative experience as a property clerk, contract clerk or administrative officer are usually required.

Workplaces/Employers

Governments

Property development companies

Property management companies

Real estate management companies

Similar Occupations Classified Elsewhere

*Real Estate Agents and Salespersons (6232)**Building superintendents (in 6663 Janitors, Caretakers and Building Superintendents)**Property clerks (in 1441 Administrative Clerks)*

1225 Purchasing Agents and Officers

Purchasing Agents and Officers purchase general and specialized equipment, materials and business services for their establishments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

MDs

DATA PEOPLE THINGS (DPT)

318

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Contract Management Officer
Contracting Officer
Materiel Management Officer
Procurement Officer
Purchaser, Furniture and Furnishings
Purchasing Agent
Purchasing Officer
Supply Officer, Government

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess the requirements of establishments and to purchase general and specialized equipment, materials and business services
- **Verbal and numerical ability** to invite tenders, consult with suppliers and review quotations
- **Spatial and form perception** to develop specifications for equipment, materials and supplies
- **Methodical interest** in compiling information to establish delivery schedules and to monitor progress
- **Directive interest** in determining contract terms and conditions and in awarding contracts or recommending contract awards; may hire, train and supervise purchasing clerks
- **Social interest** in negotiating with suppliers and contacting clients to resolve problems

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7

- A bachelor's degree or college diploma in business administration, commerce or economics is usually required.
- Purchasing agents and officers purchasing specialized materials or business services may require a related university degree or college diploma. For example, a bachelor's degree or college diploma in engineering may be required for purchasers of industrial products.
- Previous experience as a purchasing clerk or as an administrative clerk may be required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Purchasing and Inventory Clerks
(1474)

Purchasing Managers (0113)

Retail and Wholesale Buyers (6233)

Remarks

Purchasing agents and officers may specialize in the purchase of particular materials or business services such as furniture or office equipment.

1226 Conference and Event Planners

Conference and Event Planners plan, organize and co-ordinate conferences, conventions, meetings, seminars, exhibitions, trade shows, festivals and other events.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	4	3	4	4	4

INTERESTS

DSI

DATA PEOPLE THINGS (DPT)

168

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

1+, 6+, 7+

Examples of Job Titles

- Conference and Meeting Planner
- Conference Planner
- Conference Services Officer
- Convention Co-ordinator
- Event Planner
- Festival Organizer
- Meeting Planner
- Special Events Organizer
- Trade Show Planner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and organize conferences, trade shows and other events and to review administrative procedures and progress of events
- **Verbal ability** to prepare reports, programs and promotional material

- **Numerical ability and clerical perception** to establish and monitor budgets and to maintain financial records
- **Directive interest in co-ordinating** services such as accommodation, transportation, conference halls and other facilities, catering, signage, displays, translation, audio-visual equipment, printing and security; in organizing registration of participants; in approving invoices; and in hiring, training and supervising support staff

- **Social interest in speaking** with trade and professional associations and other groups to promote and discuss conference, convention and trade show services; and in meeting with sponsors and organizing committees to plan scope and format of events
- **Innovative interest** in planning entertainment and social gatherings for participants and in publicizing events

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

1+, 6+, 7+

- A university degree or college diploma in business, tourism or hospitality administration is usually required.
- Several years of experience in hospitality or tourism administration or in public relations are usually required and may replace formal educational requirements.

Workplaces/Employers

Conference and event planning companies

Conference centers

Convention centers

Governments

Professional associations

Tourism associations

Trade associations

Similar Occupations Classified Elsewhere

*Administrative Officers (1221)**Executive Assistants (1222)**Professional Occupations in Public Relations and Communications (5124)**Sales Representatives, Wholesale Trade (Non-Technical) (6411)*

1227.1 Court Officers

Court Officers co-ordinate the administrative and procedural functions of federal and provincial courts such as scheduling trials and overseeing the maintenance of court records.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

Mds

DATA PEOPLE THINGS (DPT)

168

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

- Administrator of the Court
- Clerk of the Court
- Commissioner of Affidavits
- Commissioner of Marriages
- Co-ordinator of Court Services
- Court Administrator
- Court Clerk Supervisor
- Court Officer
- Court Registrar
- Deputy Registrar
- Judicial Administrator
- Judicial Court Administrator
- Judicial Officer
- Manager, Court Services
- Registrar of Bankruptcy
- Supreme Court Registrar
- Trial Co-ordinator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to co-ordinate administrative services and establish work priorities for court staff
- **Verbal ability** to record court commencements, trial proceedings and judgments
- **Numerical ability and clerical perception** to assist in preparing annual budgets, and to collect and record sheriff fees, transcription fees and other court administrative and service fees
- **Methodical interest in co-ordinating** information to schedule court trials
- **Directive interest** in overseeing the maintenance of judicial court records; may be justices of the peace
- **Social interest in speaking** with individuals to arrange pre-trial conferences and hearings

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- Court officers usually require a university degree in law or business or public administration, or a college diploma in public administration or legal studies.
- Completion of a program for justice registrar or justice of the peace, or other court training program is required for court officers and justices of the peace.
- Several years of experience as a court clerk or in another court service occupation are usually required.

Workplaces/Employers

Federal and provincial courts

Occupational Options

Progression to senior positions such as senior court administrator is possible through experience.

Similar Occupations Classified Elsewhere

*Administrative Officers (1221)**Court Clerks (1443)**Paralegal and Related Occupations (4211)**Sheriffs and Bailiffs (6461)*

1227.2 Justices of the Peace

Justices of the Peace administer oaths, issue subpoenas, summonses and warrants, and perform other court-related duties such as conducting bail hearings.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

Mds

DATA PEOPLE THINGS (DPT)

568

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+

Examples of Job Titles

Justice of the Peace

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to apply specialized knowledge of legal principles required to perform court-related duties
- **Verbal ability** to issue subpoenas, summonses and warrants including search warrants
- **Methodical interest** in copying information to receive affidavits, declarations and affirmations, to administer oaths and to perform civil marriages
- **Directive interest** in conducting bail hearings and in releasing defendants on judges' orders
- **Social interest** in speaking with individuals to explain rights and obligations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+

- Completion of a justice registrar, justice of the peace or other court training program is required for court officers and justices of the peace.
- Several years of experience as a court clerk or in another court service occupation are usually required.
- Justices of the peace are appointed by provincial attorneys general.

Workplaces/Employers

Federal and provincial courts

Occupational Options

Progression to senior positions, such as senior court administrator, is possible through experience.

Similar Occupations Classified Elsewhere

*Administrative Officers (1221)**Court Clerks (1443)**Paralegal and Related Occupations (4211)**Sheriffs and Bailiffs (6461)*

1228.1 Immigration Officers

Immigration Officers administer and enforce laws and regulations related to immigration.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	2	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Immigration Agent
Immigration Examining Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to determine admissibility of persons seeking entry into Canada
- **Verbal ability** to conduct interviews and seek authorization from receiving countries in deportation cases
- **Clerical perception** to examine documents
- **Methodical interest in analyzing** information to determine admissibility; and in locating and apprehending persons assumed to be breaking immigration laws and in securing necessary travel documents for deported people
- **Directive interest** in granting landed immigrant status, in admitting persons and in ordering detentions and deportations
- **Social interest in speaking** as witnesses in cases related to immigration appeals

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A bachelor's degree or college diploma is usually required.
- Several years of related administrative or regulatory experience may be required.
- Completion of specialized government training program is required.

Workplaces/Employers

Government agencies

Occupational Options

Progression to managerial positions in these fields is possible with experience.

Similar Occupations Classified Elsewhere

Financial Auditors and Accountants (1111)

Other Financial Officers (1114)

Social Policy Researchers, Consultants and Program Officers (4164)

Managers responsible for immigration or unemployment insurance (in 0411 *Government Managers in Health and Social Policy Development and Program Administration*)

Managers responsible for taxation revenue or customs (in 0412 *Government Managers in Economic Analysis, Policy Development and Program Administration*)

1228.2 Unemployment Insurance Officers

Unemployment Insurance Officers administer and enforce laws and regulations related to employment insurance.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	2	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Unemployment Insurance Agent
Unemployment Insurance Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to determine the eligibility of persons applying for employment insurance benefits
- **Verbal ability** to conduct interviews
- **Numerical ability** and **clerical perception** to monitor benefit payments during claims and to examine documents
- **Methodical interest** in **analyzing** information to determine eligibility of claims; and in applying employment insurance policies and procedures
- **Directive interest** in investigating cases of possible fraud or abuse
- **Social interest** in **speaking** with claimants to ascertain reasons for loss of employment and availability for work

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A bachelor's degree or college diploma is usually required.
- Several years of related administrative or regulatory experience may be required.
- Completion of specialized government training program is required.

Workplaces/Employers

Government agencies

Occupational Options

Progression to managerial positions in these fields is possible with experience.

Similar Occupations Classified Elsewhere

Financial Auditors and Accountants (1111)

Other Financial Officers (1114)

Social Policy Researchers, Consultants and Program Officers (4164)

Managers responsible for immigration or unemployment insurance (in 0411 *Government Managers in Health and Social Policy Development and Program Administration*)

Managers responsible for taxation revenue or customs (in 0412 *Government Managers in Economic Analysis, Policy Development and Program Administration*)

1228.3 Customs Officers and Inspectors

Customs Officers and Inspectors administer and enforce laws and regulations related to customs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	3	3	4	4	3

INTERESTS

MDO

DATA PEOPLE THINGS (DPT)

267

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Customs Inspector
Customs Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to observe manufacture of articles affected by customs laws and to conduct appraisals
- **Verbal and numerical ability** to question persons at border points and to assess duties
- **Form perception** to detect undeclared merchandise and contraband
- **Manual dexterity** to inspect baggage and goods imported by mail
- **Methodical interest in speaking** with manufacturers and shippers regarding customs laws and procedures; and in ensuring that cargo complies with customs and commerce laws
- **Directive interest in analyzing** information to determine admissibility of goods; and in boarding carriers arriving from foreign countries to determine nature of cargo
- **Objective interest in handling** items such as baggage for purposes of inspection

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

5+, 6+, 7+

- A bachelor's degree or college diploma is usually required.
- Several years of related administrative or regulatory experience may be required.
- Completion of specialized government training program is required.

Workplaces/Employers

Government agencies

Occupational Options

Progression to managerial positions in these fields is possible with experience.

Similar Occupations Classified Elsewhere

Financial Auditors and Accountants (1111)

Other Financial Officers (1114)

Social Policy Researchers, Consultants and Program Officers (4164)

Managers responsible for immigration or unemployment insurance (in 0411 *Government Managers in Health and Social Policy Development and Program Administration*)

Managers responsible for taxation revenue or customs (in 0412 *Government Managers in Economic Analysis, Policy Development and Program Administration*)

1228.4 Excise Tax Revenue Officers

Excise Tax Revenue Officers administer and enforce laws and regulations related to tax revenue.

Profile Summary								
APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	3	4	3	3	4	4	3
INTERESTS								
MiD								
DATA PEOPLE THINGS (DPT)								
268								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	0	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
5+, 6+, 7+								

Examples of Job Titles
Tax Collection Officer
Tax Enforcement Officer
Revenue Officer

Descriptor Profile		
Main Characteristics		
Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:	■ Numerical ability and clerical perception to audit accounting records to determine income, exemptions, payable taxes and possibility of fraud	
	■ Innovative interest in assisting with searches and seizures of records	
■ General learning ability to examine accounting systems and internal controls of organizations	■ Methodical interest in analyzing information from accounting records to determine compliance with reporting regulations	
	■ Directive interest in speaking with people to provide advice on reporting and measurement procedures for goods subject to taxation	
■ Verbal ability to prepare briefs and charges for court cases		

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A bachelor's degree or college diploma is usually required.
- Several years of related administrative or regulatory experience may be required.
- Completion of specialized government training program is required

Workplaces/Employers

Government agencies

Occupational Options

Progression to managerial positions in these fields is possible with experience.

Similar Occupations Classified Elsewhere

Financial Auditors and Accountants (1111)

Other Financial Officers (1114)

Social Policy Researchers, Consultants and Program Officers (4164)

Managers responsible for immigration or unemployment insurance (in 0411 *Government Managers in Health and Social Policy Development and Program Administration*)

Managers responsible for taxation revenue or customs (in 0412 *Government Managers in Economic Analysis, Policy Development and Program Administration*)

1231 Bookkeepers

Bookkeepers maintain complete sets of books, keep records of accounts, verify the procedures used for recording financial transactions and provide personal bookkeeping services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	2	4	4	2	3	3	4

INTERESTS

MDi

DATA PEOPLE THINGS (DPT)

384

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4+, 5, 6

Examples of Job Titles

Accounting Bookkeeper
Bookkeeper

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to keep financial records and establish, maintain and balance accounts
- **Verbal ability** to prepare statistical, financial and accounting reports
- **Numerical ability** to calculate and prepare cheques for payrolls and for utility, tax and other bills, as well as to prepare financial statements
- **Clerical perception** to post journal entries, reconcile accounts, prepare trial balance of books and maintain general ledgers
- **Methodical interest** in compiling information to complete and submit tax remittance forms, workers' compensation forms, pension contribution forms and government documents
- **Directive interest** in keeping records of accounts and in verifying financial recording procedures by **operating** manual and computerized bookkeeping systems
- **Innovative interest** in preparing tax returns and providing other personal bookkeeping services

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4+, 5, 6

- Completion of secondary school is required.
- Completion of a college program in accounting, bookkeeping or a related field
or
completion of two years (first level) of a recognized professional accounting program (e.g., Chartered Accounting, Certified General Accounting)
or
courses in accounting or bookkeeping combined with several years of experience as a financial or accounting clerk are required.

Workplaces/Employers

Self-employment

Throughout the private and public sectors

Occupational Options

Progression to professional accounting occupations is possible with additional training.

Similar Occupations Classified Elsewhere

*Accounting and Related Clerks (1431)**Banking, Insurance and Other Financial Clerks (1434)**Financial Auditors and Accountants (1111)**Payroll Clerks (1432)*

1232 Loan Officers

Loan Officers examine, evaluate and process credit and loan applications.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	2	4	4	4

INTERESTS

MSd

DATA PEOPLE THINGS (DPT)

368

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3+, 5, 6, 7

Examples of Job Titles

Credit Officer
Loan Officer
Mortgage Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and numerical ability** to research and evaluate the financial status, references and credit of loan applicants and their ability to repay loans
- **Verbal ability** to interview applicants for personal, mortgage, student and business loans
- **Clerical perception** to perceive detail in verbal and tabular material in order to review and update credit and loan files
- **Methodical interest in compiling** information to complete credit and loan documents, to prepare statements on delinquent accounts and to forward irreconcilable accounts for collection
- **Social interest in speaking with** people to promote the sale of credit and loan services
- **Directive interest** in submitting credit and loan applications to management with recommendations for approval or rejection; and in approving and rejecting applications within authorized limits

Physical Activities

Vision

- 2 Near vision

 Colour Discrimination

- 0 Not relevant

 Hearing

- 2 Verbal interaction

 Body Position

- 1 Sitting

 Limb Co-ordination

- 1 Upper limb co-ordination

 Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

3+, 5, 6, 7

- Completion of secondary school and extensive general banking experience
or
a bachelor's degree or college diploma related to commerce or economics is required.
 - Completion of loan or credit training program, ranging from six-to-12 months, is usually required.
-

Workplaces/Employers

Banks

Credit unions

Financial institutions

Trust companies

Occupational Options

Progression to credit and loan management positions is possible with experience.

Similar Occupations Classified Elsewhere

Credit and loan managers (in 0122 *Banking, Credit and Other Investment Managers*)

1233.1 Insurance Adjusters

Insurance Adjusters investigate insurance claims and determine the amount of loss and damage covered by insurance policies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MSd

DATA PEOPLE THINGS (DPT)

218

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

Adjuster
Insurance Adjuster

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to investigate circumstances surrounding insurance claims to determine validity
- **Verbal ability** to take statements and consult with claimants, accident witnesses, doctors and other individuals
- **Numerical ability and clerical perception** to determine the amount of loss and damage covered by insurance policies and to prepare adjustment reports
- **Methodical interest in analyzing** information when inspecting automobile, home and other property damage and when examining records and reports
- **Social interest in negotiating** with people to settle claims
- **Directive interest in** recommending settlements or legal action

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

4, 5, 6, 7, R

- Completion of secondary school is required.
- A bachelor's degree, college diploma or some post-secondary education
or
several years of experience as a clerk in the claims department or other general insurance experience are required.
- Several years of on-the-job training and completion of insurance industry courses and training programs are required.
- Independent adjusters require a provincial licence issued by the Superintendent of Insurance in the province or territory of employment.

Workplaces/Employers

Branches of insurance companies

Head offices of insurance companies

Occupational Options

Completion of educational programs through the Insurance Institute of Canada or its provincial counterpart entitles insurance adjusters and claims examiners to professional recognition as an Associate of the Insurance Institute of Canada (A.I.I.C.).

Similar Occupations Classified Elsewhere

Supervisors, Finance and Insurance Clerks (1212)

1233.2 Insurance Claims Examiners

Insurance Claims Examiners examine claims investigated by insurance adjusters and authorize payments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

Mds

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

Claims Examiner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to ensure claims are valid and settled according to company practices and procedures
- **Verbal ability** to consult lawyers, doctors and other individuals to discuss claims
- **Numerical ability and clerical perception** to calculate claims and to examine adjusters' reports, similar claims and precedents in order to determine coverage
- **Methodical interest** in analyzing information to review, examine and calculate claims investigated by insurance adjusters
- **Directive interest** in authorizing claims investigated by insurance adjusters; and in approving automobile, fire, life, disability, dental and other claims
- **Social interest** in speaking with people to discuss claims

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, 7, R

- Completion of secondary school is required.
- A bachelor's degree, college diploma or some post-secondary education
or
several years of experience as a clerk in the claims department or other general insurance experience are required.
- Several years of on-the-job-training and completion of insurance industry courses and training programs are required.

Workplaces/Employers

Branches of insurance companies

Head offices of insurance companies

Occupational Options

Completion of educational programs through the Insurance Institute of Canada or its provincial counterpart entitles insurance adjusters and claims examiners to professional recognition as an Associate of the Insurance Institute of Canada (A.I.I.C.).

Similar Occupations Classified Elsewhere

Supervisors, Finance and Insurance Clerks (1212)

1234 Insurance Underwriters

Insurance Underwriters review and evaluate insurance applications to determine risks, premiums and coverage according to company policies.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	2	4	3	2	4	4	4
INTERESTS								
MSd								
DATA PEOPLE THINGS (DPT)								
168								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	0	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
4, 5, 6, 7								

Examples of Job Titles

Insurance Underwriter
Property Underwriter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to evaluate new and renewal insurance applications to determine risks, premiums, coverage and other conditions of insurance contract
- **Verbal ability** to provide recommendations on the design of individual and group insurance plans and to prepare underwriting reports
- **Numerical ability and clerical perception** to use medical reports, rate tables, reference materials and other documents
- **Methodical interest in co-ordinating** information to review individual and group applications for automobile, fire, health, liability, life, property, marine, aircraft and other insurance, as well as to ensure compliance with government regulations
- **Social interest in speaking** with clients, insurance agents, consultants and other company personnel to provide underwriting advice and answer inquiries
- **Directive interest** in approving the sale of insurance policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, 7

- Completion of secondary school and some general insurance experience
or
a bachelor's degree, college diploma or some post-secondary education are required.
- Several years of on-the-job training and completion of insurance industry underwriting courses and training programs are required.

Workplaces/Employers

Head and branch offices of insurance companies

Occupational Options

Progression to management positions, such as underwriter manager, is possible with experience.

Completion of educational programs through the Insurance Institute of Canada or a provincial counterpart entitles insurance underwriters to professional recognition as an Associate of the Insurance Institute of Canada (A.I.I.C.) or Fellow of the Insurance Institute of Canada (F.I.I.C.).

Similar Occupations Classified Elsewhere

Insurance Agents and Brokers (6231)

Underwriter managers (in 0121
Insurance, Real Estate and Financial Brokerage Managers)

1235.1 Assessors

Assessors determine the value of land, businesses, estates and other real property for purposes of sale, purchase, taxation and disposal of assets.

Profile Summary										Examples of Job Titles									
APTITUDES										Property Assessor									
G	V	N	S	P	Q	K	F	M											
2	2	2	3	3	4	4	4	4											
INTERESTS																			
Mds																			
DATA PEOPLE THINGS (DPT)																			
268																			
PHYSICAL ACTIVITIES (PA)																			
V	C	H	B	L	S														
3	0	2	3	0	1														
ENVIRONMENTAL CONDITIONS (EC)																			
L1, L3																			
EDUCATION/TRAINING																			
6, R																			

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess, before sale or purchase, the value of land, buildings, structures, machinery, equipment and property improvements for purposes of taxation, grants and regional planning
- **Verbal ability** to defend assessments in court, if appealed, and to read manuals to assess the taxable value of properties
- **Numerical ability** to estimate replacement costs of properties depreciation allowances, selling prices of similar properties and income capitalization of commercial and industrial properties
- **Spatial and form perception** to measure and record dimensions of buildings and properties, and to examine plans to determine dimensions
- **Methodical interest in analyzing** data such as past sales, title searches, engineering and alignment maps, soil maps, subdivision plans, water and sewer plans, location costs and easements
- **Directive interest** in advising people on the value of land, buildings, structures, machinery, equipment and property improvements for purposes of sale, purchase, taxation and disposal of assets
- **Social interest in speaking** with ratepayers to explain assessment process

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training
6, R

- Assessors require a college diploma in municipal assessment and accreditation with the municipal assessment association of the province.

Workplaces/Employers

Government agencies

Private sector organizations

Real estate firms

Self-employment

Occupational Options

Progression to management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial Auditors and Accountants
(1111)

Financial and Investment Analysts
(1112)

Insurance Adjusters and Claims Examiners (1233)

Property Administrators (1224)

Market analysts (in 4163 *Economic Development Officers and Marketing Researchers and Consultants*)

Right-of-way agents (in 1225 *Purchasing Agents and Officers*)

Remarks

Assessors may specialize in counselling and advising in a specific field of assessment such as residential, commercial, industrial, institutional or farm lands.

1235.2 Valuators

Valuators determine the value of land, businesses, estates and other real property for purposes of sale, purchase, taxation and disposal of assets.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	4	4	4	4

INTERESTS

Mds

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, R

Examples of Job Titles

Business Valuator

Property Valuator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess the value of properties, personal and other articles, and the competitiveness of a business for purposes of purchase, sale, taxation and disposal of assets
- **Verbal ability** to prepare reports for estate planning, matrimonial litigation, insurance and business losses, as well as to appear as an expert witness before courts, security regulators and other regulatory boards and commissions
- **Numerical ability** to compute depreciation, repair and replacement costs of items and to estimate market value of a business
- **Spatial and form perception** to examine the condition of personal and household effects, merchandise and other articles to determine their value
- **Methodical interest** in collecting and **analyzing** financial records of a business such as financial statements, budgets, projections and sales data
- **Directive interest** in conducting research on current market values and trends and on industry to assess a business in relation to its competitors
- **Social interest** in **speaking** with senior management of a firm to obtain additional information about its financial status

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7, R

- Valuators usually require a bachelor's degree or college diploma in accounting, business or commerce and accreditation with the Canadian Institute of Chartered Business Valuators based on successful completion of their business and securities valuation program.

Workplaces/Employers

Government agencies

Private sector organizations

Real estate firms

Self-employment

Occupational Options

Progression to management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial Auditors and Accountants (1111)

Financial and Investment Analysts (1112)

Insurance Adjusters and Claims Examiners (1233)

Property Administrators (1224)

Market analysts (in 4163 *Economic Development Officers and Marketing Researchers and Consultants*)

Right-of-way agents (in 1225 *Purchasing Agents and Officers*)

1235.3 Appraisers

Appraisers determine the value of land, businesses, estates and other real property for purposes of sale, purchase, taxation or disposal of assets. Appraisers also determine the value of personal and household items.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	4	4	4	4

INTERESTS

Mds

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

4, 5, 6, R

Examples of Job Titles

Real Estate Appraiser

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to appraise value of properties, buildings, industrial and commercial machinery and equipment, and personal and household items
- **Verbal ability** to prepare appraisal reports for lending agencies, insurance companies, government departments, courts, attorneys, creditors, buyers and auctioneers
- **Numerical ability** to compute depreciation and replacement costs and to estimate value of properties for purchase, sale, investment, mortgage and loan purposes
- **Spatial and form perception** to inspect properties for construction, condition and functional design, as well as to take measurements
- **Methodical interest in analyzing** information for appraisal purposes when searching public records of sales, leases, assessments and other transactions
- **Directive interest** in submitting reports to corroborate appraised value of properties and in determining future values based on study of location, trends, impending changes and other potential influences
- **Social interest in speaking** with people to collect data and information used when appraising value of properties

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

4, 5, 6, R

- Appraisers require a college diploma or vocational training in the field of appraisal or several years of experience in a position related to the field of appraisal.
- Real estate appraisers usually require several years of experience as a real estate agent, right-of-way agent or property administrator.
- Appraisers of residential, commercial or industrial property require accreditation with the Appraisal Institute of Canada.

Workplaces/Employers

Government agencies
 Private-sector organizations
 Real estate firms
 Self-employment

Occupational Options

Progression to management positions is possible with experience.

Similar Occupations Classified Elsewhere

Financial Auditors and Accountants
 (1111)

Financial and Investment Analysts
 (1112)

Insurance Adjusters and Claims Examiners (1233)

Property Administrators (1224)

Market analysts (in 4163 *Economic Development Officers and Marketing Researchers and Consultants*)

Right-of-way agents (in 1225 *Purchasing Agents and Officers*)

Remarks

Appraisers may specialize in a specific type of appraisal such as real estate appraisal.

1236.1 Customs Brokers

Customs Brokers clear goods through customs and to their destinations on behalf of importers and exporters.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

MSd

DATA PEOPLE THINGS (DPT)

168

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

Customs Broker
Licensed Customs Broker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to prepare and process import/export documents and other forms on behalf of clients according to customs regulations, laws and procedures
- **Verbal ability** to advise clients on export and import restrictions, tariff systems, letters of credit, insurance requirements and other customs-related matters; may represent clients before administrative tribunals and in other dealings with government officials
- **Methodical interest** in co-ordinating information to arrange for payment of duties, taxes, storage and transportation of imported goods, and of bonds for shipment of goods subject to duty
- **Social interest** in speaking with people to quote duty and tax rates on commodities
- **Directive interest** in signing import/export documents on behalf of clients, using power of attorney

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, 7, R

- Completion of secondary school is required.
- Some post-secondary education in commerce or a related field may be required.
- Customs brokers require several years of on-the-job training and completion of a customs brokers training program through the Canadian Institute of Customs Brokers.
- A customs broker licence, issued by Revenue Canada, Customs and Excise, is required for an individual or company to operate a customs brokerage business.

Workplaces/Employers

Brokerage establishments

Customs offices

Self-employment

Occupational Options

There is no mobility among the different types of brokers in the 1236 group.

Similar Occupations Classified Elsewhere

Insurance, Real Estate and Financial Brokerage Managers (0121)

Securities Agents, Investment Dealers and Traders (1113)

Insurance brokers (in 6231 *Insurance Agents and Brokers*)

1236.2 Ship Brokers

Ship Brokers buy and sell ships, yachts and cargo space on ships on behalf of clients. This group also includes other brokers, not elsewhere classified, who negotiate commercial transactions or other services between parties on behalf of clients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

MSd

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

4, 5, 6, 7

Examples of Job Titles

- Cargo Broker
- Chartered Ship Broker
- Ship Broker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to buy and sell cargo space on ships on behalf of individuals, companies and governments and to inspect, buy and sell ships and yachts on behalf of clients
- **Verbal ability** to show and explain features of ships and yachts when purchasing and selling for clients, and to consult trade publications and other sources to provide information to clients on available cargo space, destinations, rates and departure locations and times
- **Numerical ability and clerical perception** to prepare contracts and other papers to complete sales transactions
- **Methodical interest in co-ordinating** information to arrange for insurance coverage for cargo and ships, as well as to arrange for registration and licensing of ships
- **Social interest in negotiating** to determine rates, terms and prices when purchasing and selling for clients
- **Directive interest** in buying and selling cargo space, ships and yachts

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training

4, 5, 6, 7

- Completion of secondary school is required.
- Some post-secondary education in commerce or a related field may be required.
- Ship brokers require several years of on-the-job training.
- Correspondence courses from the Institute of Chartered Ship Brokers are available for ship brokers.

Workplaces/Employers

Self-employment

Ship or other brokerage establishments

Occupational Options

There is no mobility among the different types of brokers in the 1236 group.

Similar Occupations Classified Elsewhere

Insurance, Real Estate and Financial Brokerage Managers (0121)

Securities Agents, Investment Dealers and Traders (1113)

Insurance brokers (in 6231 Insurance Agents and Brokers)

1241 Secretaries (Except Legal and Medical)

Secretaries perform administrative duties in support of managerial and professional employers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	3	2	3	3	3

INTERESTS

Sod

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Executive Secretary

Private Secretary

Secretary

Technical Secretary

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to set up and maintain information filing systems
- **Verbal ability** to prepare minutes of meetings and routine correspondence
- **Form and clerical perception** to read and take shorthand, to record minutes of meetings and to observe details when arranging employers' travel schedules and making reservations
- **Motor co-ordination and finger and manual dexterity** to type correspondence, reports, minutes, invoices and related material from shorthand, machine dictation and handwritten copy
- **Social interest in speaking** with people to schedule and confirm employers' appointments and meetings, to greet visitors, to determine the nature of visitors' business, to direct visitors to employers or appropriate persons, and to answer telephone questions and relay telephone calls
- **Objective interest in operating** equipment such as computers, word processors and typewriters
- **Directive interest in compiling** data, statistics and other information; and in opening and distributing mail and other material and co-ordinating the flow of information, internally and with other departments and organizations; may supervise other office workers

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6

- Completion of secondary school is usually required.
- Completion of a one- or two-year college or other program for secretaries
or
previous clerical experience is required.

Workplaces/Employers

Throughout the private and public sectors

Similar Occupations Classified Elsewhere

Executive Assistants (1222)

Legal Secretaries (1242)

Medical Secretaries (1243)

Court Recorders and Medical Transcriptionists (1244)

Office managers (in 1221
Administrative Officers)

1242 Legal Secretaries

Legal Secretaries perform administrative duties in support of employers in the legal field.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	3	2	3	3	3

INTERESTS

MOd

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6

Examples of Job Titles

- Estate Secretary
- Legal Secretary
- Litigation Secretary
- Real Estate Secretary

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to set up filing systems using knowledge of legal records and procedures and to control confidential materials and documents
- **Verbal and numerical ability** to prepare correspondence and financial statements
- **Form and clerical perception** to read shorthand and to proofread documents and correspondence; may attend court, meetings and conferences to take notes, minutes and dictation
- **Motor co-ordination and finger and manual dexterity** to type correspondence and legal documents such as deeds, wills, affidavits and briefs from handwritten copy, shorthand and machine dictation
- **Methodical interest in compiling** information to maintain filing systems; and in reviewing documents and correspondence to ensure that they comply with legal procedures and grammatical usage
- **Objective interest in operating** equipment such as computers, word processors and typewriters; may operate electronic mail systems
- **Directive interest in speaking** with people to schedule employers' appointments, meetings and conferences and in opening and distributing mail and other materials, and co-ordinating the flow of information internally and with other departments and organizations; may supervise office workers

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training
5, 6

- Completion of secondary school is usually required.
- Completion of a one- or two-year college or other program for secretaries or legal secretaries is usually required.

Workplaces/Employers

Land title offices

Law offices

Legal departments of large firms

Municipal, provincial and federal courts and governments

Real estate companies

Similar Occupations Classified Elsewhere

*Paralegal and Related Occupations (4211)*By-law clerks (in 1441 *Administrative Clerks*)Court recorders (in 1244 *Court Recorders and Medical Transcriptionists*)

1243

Medical Secretaries

Medical Secretaries perform administrative duties in support of employers in the medical field.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	3	4	3	2	3	3	3
INTERESTS								
SOd								
DATA PEOPLE THINGS (DPT)								
364								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
4, 5, 6								

Examples of Job Titles

Medical Secretary
Ward Secretary

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to establish confidential medical files and records
- **Verbal and numerical ability** to prepare correspondence and financial statements and to handle billing procedures
- **Form and clerical perception** to read shorthand and to complete forms and documents; may take dictation using shorthand
- **Motor co-ordination and finger and manual dexterity** to type medical records, reports, articles, case histories and correspondence from machine dictation, shorthand and handwritten notes
- **Social interest in speaking** with people to schedule and confirm medical appointments, to receive and communicate messages for doctors and patients, to order supplies and to interview patients
- **Objective interest in operating** equipment such as typewriters, word processors and computers
- **Directive interest in compiling** information to complete forms, documents and case histories, to complete insurance and other claim forms, to maintain confidential medical files and records and to maintain inventory; may perform other general office work

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6

- Completion of secondary school is usually required.
- Completion of a one- or two-year college program or other specialized courses for secretaries or medical secretaries is usually required.

Workplaces/Employers

Doctors' offices

Hospitals

Medical clinics

Various medical settings

Similar Occupations Classified Elsewhere

Medical records clerks (in 1413
Records and File Clerks)Medical transcriptionists (in 1244
Court Recorders and Medical Transcriptionists)

1244.1 Court Recorders

Court Recorders set down and transcribe verbatim proceedings of courts, legislative assemblies and committees, and prepare dictated reports, correspondence and statistics that require knowledge of legal terms.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4

INTERESTS

MOi

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6

Examples of Job Titles

- Court Recorder
- Court Reporter
- Court Stenographer
- Hansard Reporter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to prepare dictated reports, correspondence and statistics with legal terms
- **Clerical perception** to verify transcripts by checking copy against original records of proceedings

- **Motor co-ordination and finger dexterity** to record verbatim proceedings of courtroom
- **Methodical interest in copying** information to transcribe recorded proceedings according to established formats

- **Objective interest in operating** equipment to use stenomask, stenograph machine and computerized recording equipment
- **Innovative interest** to research and locate quotes to ensure accuracy

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, 6

- Completion of secondary school is required.
- Completion of a college or other program in court reporting is required.

Workplaces/Employers

Courts of law

Federal legislative assemblies and committees

Provincial legislative assemblies and committees

Self-employment

Occupational Options

There is some mobility among occupations in the 1244 group and other occupations requiring similar knowledge of legal or medical terminology such as legal secretary or medical secretary.

Similar Occupations Classified Elsewhere

*Legal Secretaries (1242)**Medical Secretaries (1243)*

1244.2 Medical Transcriptionists

Medical Transcriptionists record and transcribe surgical proceedings, medical records and other reports requiring knowledge of medical terms.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	3	3	3	3	4

INTERESTS

MOi

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Medical Transcriptionist
Transcriptionist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** and **verbal ability** to transcribe dictated reports and correspondence with medical terms
- **Form perception** to read rough notes and take shorthand
- **Clerical perception** to proofread work for typographical and grammatical errors
- **Motor co-ordination** and **finger dexterity** to record information
- **Methodical interest** in **copying** to transcribe machine dictation or rough notes from medical reports, correspondence, medical records and patient information
- **Objective interest** in **operating** office equipment to record and transcribe surgical proceedings, medical records and other reports
- **Innovative interest** to research the accuracy of transcribed information

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, 6

- Completion of secondary school is required.
- Completion of a college or other program in medical transcription is required.

Workplaces/Employers

Doctor's offices

Hospitals

Medical clinics

Self-employment

Occupational Options

There is some mobility among occupations in the 1244 group and other occupations requiring similar knowledge of legal or medical terminology such as legal secretary or medical secretary.

Similar Occupations Classified Elsewhere

*Legal Secretaries (1242)**Medical Secretaries (1243)*

1411 General Office Clerks

General Office Clerks type and file correspondence, reports, statements and other material, operate office equipment, answer telephones and perform clerical duties of a general nature according to established procedures.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4
INTERESTS								
OMi								
DATA PEOPLE THINGS (DPT)								
364								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
3, 4								

Examples of Job Titles

Administrative Assistant
General Office Clerk
Office Assistant
Office Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to perform clerical duties; may process applications, receipts, expenditures, forms and other documents, and may perform routine bookkeeping tasks such as preparing invoices and bank deposits
- **Verbal ability** to receive and forward telephone and counter inquiries to the appropriate people
- **Clerical perception** to proofread correspondence, reports, statements, invoices, forms and other documents
- **Motor co-ordination and finger dexterity** to type from notes or dictaphone, to collate documents for distribution, mailing and filing, and to open, sort and route incoming mail and other documents
- **Objective interest in operating** equipment such as typewriters, word processors, computers, photocopiers, and telex and facsimile machines
- **Methodical interest in compiling** information to maintain and update manual and computerized filing, inventory, mailing and database systems
- **Innovative interest in speaking** to clients and the public to provide general information; may verify applications, receipts, expenditures, forms and other documents

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is usually required.
- Completion of secondary school or college business or commercial courses is usually required.
- Ability to type or operate a word processor is usually required.

Workplaces/Employers

Offices throughout the public and private sectors

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Administrative Clerks (1441)

Receptionists and Switchboard Operators (1414)

Records and File Clerks (1413)

Secretaries (Except Legal and Medical) (1241)

Supervisors, General Office and Administrative Support Clerks (1211)

Typists and Word Processing Operators (1412)

1412.1 Typists

Typists use typewriters, word processors and computers to type correspondence, reports, text and other written material.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	3	3	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2, 4

Examples of Job Titles

Dicta-Typist
Teletype Operator
Typist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to receive and register correspondence, reports, text and other written material for typing
- **Clerical perception** to proofread correspondence, reports, statements, invoices, forms and other material
- **Form perception** to prepare pages as required for various types of documents
- **Motor co-ordination and finger and manual dexterity** to type documents
- **Objective interest in operating** equipment such as typewriters, word processors and computers; may use photocopiers
- **Methodical interest in copying** information in order to type written material; may photocopy, collate and file documents
- **Innovative interest in formatting** pages as required for different types of documents

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2, 4

- Some secondary school education is required.
- Completion of secondary school, college or other courses in keyboarding and word processing may be required.
- Ability to type or operate a word processor is required.

Workplaces/Employers

Offices and word processing units throughout the public and private sectors

Occupational Options

Progression to supervisory positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

*Computer Operators (1421)**Data Entry Clerks (1422)**General Office Clerks (1411)**Secretaries (Except Legal and Medical) (1241)*

Word processing supervisors
(in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1412.2 Word Processing Operators

Word Processing Operators type correspondence, reports, text and other written material using word processors and computers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	3	3	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2, 4

Examples of Job Titles

Word Processing Operator

Word Processor Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** and **verbal ability** to receive and register correspondence, reports, texts and other written material for word processing
- **Form perception** to prepare word processors and word processing software for different types of documents
- **Clerical perception** to proofread material
- **Motor co-ordination** and **finger and manual dexterity** to type documents
- **Objective interest in operating** word processors and computers to input documents and data onto diskettes, disks and tapes for printing and storage, and to use printers to print documents; may use photocopiers
- **Methodical interest in copying** information to type written materials, to label, copy and store diskettes, disks and tapes, and to maintain inventory of stored material; may photocopy, collate and file documents
- **Innovative interest** in formatting word processing equipment and software for different types of documents

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2, 4

- Some secondary school education is required.
- Completion of secondary school, college or other courses in keyboarding and word processing may be required.
- Ability to type or operate a word processor is required.

Workplaces/Employers

Offices and word processing units throughout the public and private sectors

Self-employment

Occupational Options

Progression to supervisory positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Computer Operators (1421)

Data Entry Clerks (1422)

General Office Clerks (1411)

Secretaries (Except Legal and Medical) (1241)

Word processing supervisors (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1413.1 Records Clerks

Records Clerks process, code, store and retrieve records and documents, and follow schedules for retaining and disposing of documents and files according to established policies and procedures.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	3	3	4
INTERESTS								
Mid								
DATA PEOPLE THINGS (DPT)								
364								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	1	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
3, 4, 5, 6								

Examples of Job Titles

- Aircraft Records Clerk
- Microfilm Records Searcher
- Records Classifier
- Records Clerk
- Records System Clerk
- Technical Records Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to classify, code, cross-reference and store records
- **Verbal ability** to compile reports on activities within record services
- **Clerical perception** to review files periodically to ensure that they are complete and classified
- **Motor co-ordination and finger dexterity** to use information retrieval systems
- **Methodical interest in compiling** information to maintain indexes for classification systems, to label files according to schedules for retaining and disposing of documents and files, and to maintain access lists for security-classified records; and in preparing files for disposal
- **Innovative interest in operating** information retrieval systems; and in compiling statistics
- **Directive interest in speaking** to respond to requests for records

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4, 5, 6

- Completion of secondary school is usually required.
- Records clerks may require completion of college or other program in records management and usually require experience as a file clerk.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

General Office Clerks (1411)

Library Clerks (1451)

Health record unit supervisors (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

Health records administrators (in 0114 *Other Administrative Services Managers*)

Library technicians (in 5211 *Library and Archive Technicians and Assistants*)

Records management supervisors (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

Records systems analysts (in 1122 *Professional Occupations in Business Services to Management*)

1413.2 File Clerks

File Clerks organize papers, records, documents and other material according to subject matter and other filing systems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

687

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3

Examples of Job Titles

File and Classification Clerk
File Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to review files in order to identify subject matter and other criteria by which to file them
- **Numerical ability** to keep records of materials filed and removed
- **Clerical perception** to perceive detail when filing and retrieving files
- **Methodical interest in comparing** information to sort material according to particular filing systems
- **Innovative interest in handling** files to remove materials when requested and to store materials according to filing systems in drawers, cabinets and storage boxes
- **Directive interest** in locating files when requested and in maintaining records of materials filed and removed

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

General Office Clerks (1411)

Library Clerks (1451)

Health record unit supervisors
(in 1211 *Supervisors, General Office and Administrative Support Clerks*)

Health records administrators
(in 0114 *Other Administrative Services Managers*)

Library technicians (in 5211 *Library and Archive Technicians and Assistants*)

Records management supervisors
(in 1211 *Supervisors, General Office and Administrative Support Clerks*)

Records systems analysts (in 1122 *Professional Occupations in Business Services to Management*)

1413.3 Health Records Technicians

Health Records Technicians maintain systems for the collection, storage, retrieval and retention of health information.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	3	3	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Health Records Technician
Medical Records Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** and **verbal ability** to apply knowledge of medical terms, physiology and treatments in order to maintain health information systems
- **Numerical ability** to prepare medical, social and administrative statistics
- **Clerical perception** to review medical records for completeness
- **Motor co-ordination** and **finger dexterity** to use information retrieval systems
- **Methodical interest** in **compiling** information to classify, code, cross-reference and store health records and other information; and in maintaining indexes for classification systems
- **Innovative interest** in **operating** information retrieval systems; and in preparing medical, social and administrative statistics
- **Directive interest** in **speaking** to respond to requests for health record information

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, 6, R

- Health records technicians require completion of a two-to-three year college or other program in health records management and certification by the Canadian Health Record Association.

Workplaces/Employers

Clinics

Health care institutions

Hospitals

Occupational Options

Health records technicians are nationally certified and are eligible for employment in all provinces and territories.

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

General Office Clerks (1411)

Library Clerks (1451)

Health record unit supervisors
(in 1211 *Supervisors, General Office and Administrative Support Clerks*)

Health records administrators
(in 0114 *Other Administrative Services Managers*)

Library technicians (in 5211 *Library and Archive Technicians and Assistants*)

Records management supervisors
(in 1211 *Supervisors, General Office and Administrative Support Clerks*)

Records systems analysts (in 1122 *Professional Occupations in Business Services to Management*)

1414.1 Receptionists

Receptionists greet people arriving at offices, hospitals and other establishments, direct visitors to appropriate persons and services, answer and forward telephone calls, take messages, schedule appointments and perform other clerical duties.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4

INTERESTS

SMd

DATA PEOPLE THINGS (DPT)

367

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3

Examples of Job Titles

- Business Receptionist
- Reception Clerk
- Receptionist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to greet people coming into establishments and determine the appropriate contacts and services they require
- **Clerical perception** to take messages; may receive and record payments in ledgers

- **Motor co-ordination and finger dexterity** to answer and forward telephone calls; may operate typewriters, word processors and computers
- **Social interest in speaking** to greet people and provide information

- **Methodical interest in compiling** information to schedule appointments for employers; may perform clerical duties such as filing, and collecting and distributing mail and messages
- **Directive interest in handling** equipment such as telephones and computers; and in directing clients and customers to appropriate contacts and services

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.
- On-the-job training may be provided.

Workplaces/Employers

Offices throughout the public and private sectors

Similar Occupations Classified Elsewhere

Customer Service, Information and Related Clerks (1453)

Hotel Front Desk Clerks (6435)

Telephone Operators (1424)

Receptionist supervisors (in 1211 Supervisors, General Office and Administrative Support Clerks)

Remarks

Receptionists may perform other clerical duties such as sorting and distributing mail, typing and filing.

1414.2 Hospital Admitting Clerks

Hospital Admitting Clerks greet people arriving at hospitals and obtain information to direct them to medical service areas.

Profile Summary									Examples of Job Titles		
APTITUDES									Admitting Clerk		
G	V	N	S	P	Q	K	F	M	Hospital Admitting Clerk		
3	3	4	4	4	3	3	3	4			
INTERESTS											
SMd											
DATA PEOPLE THINGS (DPT)											
367											
PHYSICAL ACTIVITIES (PA)											
V	C	H	B	L	S						
2	0	2	1	1	1						
ENVIRONMENTAL CONDITIONS (EC)											
L1											
EDUCATION/TRAINING											
3											

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** and **verbal ability** to interview patients or their representatives in order to obtain and process information required to provide hospital and medical services
- **Clerical perception** to record information accurately; may receive payment on accounts

- **Motor co-ordination** and **finger dexterity** to answer telephone calls and type admitting records
- **Social interest** in **speaking** to patients or their representatives to explain and provide written information regarding regulations such as visiting hours, payment of accounts and schedules of charges

- **Methodical interest** in **compiling** information to schedule appointments for examinations according to nature of illnesses; and in routing admitting records to designated departments
- **Directive interest** in **handling** equipment such as telephones and computers to provide general information concerning patient care; and in obtaining signed consent statements from patients for treatments and assigning patients to rooms

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.
 - On-the-job training may be provided.
-

Workplaces/Employers

Hospitals

Similar Occupations Classified Elsewhere

Customer Service, Information and Related Clerks (1453)

Hotel Front Desk Clerks (6435)

Telephone Operators (1424)

Receptionist supervisors (in 1211 Supervisors, General Office and Administrative Support Clerks)

1414.3 Medical and Dental Receptionists

Medical and Dental Receptionists greet patients and direct them to appropriate services, answer and forward telephone calls, take messages, schedule appointments and perform other clerical duties.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4
INTERESTS								
SMd								
DATA PEOPLE THINGS (DPT)								
367								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
3								

Examples of Job Titles

Dental Receptionist
Medical Receptionist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to greet people coming into medical and dental offices and to determine their requirements
- **Clerical perception** to receive and record payments

- **Motor co-ordination and finger dexterity** to answer and forward telephone calls; may operate typewriters, word processors and computers
- **Social interest in speaking** to arrange appointments and announce patients' arrivals

- **Methodical interest** in compiling information to maintain billing systems
- **Directive interest** in handling equipment such as telephones and computers; and in removing and arranging patients' charts and records according to daily appointment schedules, and in directing patients to examination and treatment areas

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.

- On-the-job training may be provided.

Workplaces/Employers

Clinics

Hospitals

Medical and dental offices

Similar Occupations Classified Elsewhere*Customer Service, Information and Related Clerks (1453)**Hotel Front Desk Clerks (6435)**Telephone Operators (1424)**Receptionist supervisors (in 1211 Supervisors, General Office and Administrative Support Clerks)***Remarks**

Receptionists may perform other clerical duties such as sorting and distributing mail, typing and filing.

1414.4 Switchboard Operators

Switchboard Operators answer and forward telephone calls, take messages, schedule appointments and perform other clerical duties.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4

INTERESTS

SMd

DATA PEOPLE THINGS (DPT)

564

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3

Examples of Job Titles

Switchboard Operator
Telereceptionist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to relay incoming, outgoing and inter-office calls
- **Clerical perception** to record messages

- **Motor co-ordination and finger dexterity** to use telephone systems and switchboards; may operate typewriters, word processors and computers
- **Social interest in speaking** to provide information
- **Methodical interest in copying** information to take messages; may keep records of calls placed and toll charges
- **Directive interest in operating** telephone systems and switchboards to screen and forward telephone calls

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.

- On-the-job training may be provided.

Workplaces/Employers

Hospitals

Offices throughout the public and private sectors

Similar Occupations Classified Elsewhere

*Customer Service, Information and Related Clerks (1453)**Hotel Front Desk Clerks (6435)**Telephone Operators (1424)**Receptionist supervisors (in 1211 Supervisors, General Office and Administrative Support Clerks)*

Remarks

Switchboard operators may perform other clerical duties such as sorting and distributing mail, typing and filing.

1414.5 Answering Service Operators

Answering Service Operators answer and forward telephone calls and take and relay messages.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4

INTERESTS

SMd

DATA PEOPLE THINGS (DPT)

564

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3

Examples of Job Titles

Answering Service Operator
Telereceptionist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide answering services for clients
- **Verbal ability** to greet callers and provide names and phone numbers of clients' offices and establishments
- **Clerical perception** to record, date stamp and file messages
- **Motor co-ordination and finger dexterity** to use telephone switchboards to place calls at clients' requests
- **Social interest in speaking** to provide information, deliver messages and relay calls
- **Methodical interest in copying** information to record and relay messages
- **Directive interest in operating** telephone switchboards to locate clients in emergencies

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.
- On-the-job training may be provided.

Workplaces/Employers

Hospitals

Medical and dental offices

Offices throughout the public and private sectors

Similar Occupations Classified Elsewhere

Customer Service, Information and Related Clerks (1453)

Hotel Front Desk Clerks (6435)

Telephone Operators (1424)

Receptionist supervisors (in 1211 Supervisors, General Office and Administrative Support Clerks)

1421 Computer Operators

Computer Operators run computer equipment, produce computer-generated reports, monitor the operation of computer systems and networks, and co-ordinate their use.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

Computer Operator
Computer Tape Librarian
Junior Computer Operator
Magnetic Tape Operator
Master Console Operator
Network Controller
Network Operator
Peripheral Operator
System Operator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to co-ordinate and schedule the use of computer terminals and networks
- **Verbal ability** to produce computer-generated reports
- **Numerical ability** to record operating data such as in-use and downtime
- **Spatial and form perception** to observe equipment and control panels on consoles for error lights, verification printouts, error messages, stoppages and faulty outputs
- **Clerical perception** to load computer tapes and disks
- **Motor co-ordination and finger and manual dexterity** to install software, printer paper and forms
- **Objective interest in operating** equipment such as terminals, tape drives, disk drives, printers, master consoles and software such as spreadsheet programs and word processing programs
- **Methodical interest in compiling** information to monitor the operation of systems and networks; and in distributing output to users
- **Innovative interest in speaking** to maintenance technicians when reporting computer malfunctions; and in manipulating data

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4 ,

- Completion of secondary school is usually required.
- College or other courses in computer operation or network administration are usually required.

Workplaces/Employers

Computer centers throughout the private and public sectors

Occupational Options

Progression to supervisory positions is possible with additional training and experience.

Similar Occupations Classified Elsewhere

Computer Programmers (2163)

Data Entry Clerks (1422)

Typists and Word Processor Operators (1412)

Desktop publishing specialists
(in 1423 *Typesetters and Related Occupations*)

Supervisors of computer operators
(in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1422 Data Entry Clerks

Data Entry Clerks type at keyboards and data entry consoles to input coded, statistical and other information onto diskettes, disks and tapes for storage.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
3	3	4	4	4	3	3	3	3	
INTERESTS									
OMi									
DATA PEOPLE THINGS (DPT)									
584									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	1	1	1	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
2, 3, 4									

Examples of Job Titles
Data Control Clerk
Data Entry Clerk
Data Entry Operator
Data Processor
Keypunch Operator
Payment Entry Clerk

Descriptor Profile		
Main Characteristics Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:	<ul style="list-style-type: none">■ Clerical perception to verify accuracy and completeness of data	
	<ul style="list-style-type: none">■ Motor co-ordination and finger and manual dexterity to type at keyboards and consoles	
<ul style="list-style-type: none">■ General learning and verbal ability to receive and register invoices, forms, records and other documents for data capture	<ul style="list-style-type: none">■ Objective interest in operating equipment	
	<ul style="list-style-type: none">■ Methodical interest in copying information to input source data onto diskettes, disks and tapes for storage, and to identify, label and store diskettes, disks and tapes; and in maintaining libraries of diskettes, disks and tapes	
	<ul style="list-style-type: none">■ Innovative interest in reporting equipment malfunctions	

Physical Activities

Vision
2 Near vision

Colour Discrimination
0 Not relevant

Hearing
1 Limited

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
2, 3, 4

- Completion of secondary school may be required.
- College or other courses in data entry may be required.
- Ability to type or operate data entry equipment is usually required.

Workplaces/Employers

Offices and computer centers throughout the private and public sectors

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Computer Operators (1421)

General Office Clerks (1411)

Supervisors, General Office and Administrative Support Clerks (1211)

Typists and Word Processing Operators (1412)

1423.1 Desktop Publishing Operators

Desktop Publishing Operators run software and computer equipment to input, design, lay out and produce text that is ready to print.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	4	3	3	3	3	3	3
INTERESTS								
MOI								
DATA PEOPLE THINGS (DPT)								
384								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	1	1	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
4, 5, 6								

Examples of Job Titles

Desktop Compositor
Desktop Publishing Operator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to apply knowledge of desktop publishing techniques to produce camera-ready master copies of publications
- **Verbal ability** to talk with editorial and graphic arts staff to clarify format and page layout requirements
- **Spatial and form perception** to select line lengths to ensure typed material fits within layout requirements, and to measure areas for illustrations and headings
- **Clerical perception** to scan video screens to monitor input, ensure accuracy and correct errors
- **Motor co-ordination and finger dexterity** to use keyboards
- **Manual dexterity** to store drafts on paper, diskette and master copies that contain texts and illustrations
- **Methodical interest** in compiling information to follow specifications for typefaces and point sizes, column widths, justifications, depth of copy on pages, headings, locations of columns and pagination; and in following design specifications using page-layout software
- **Objective interest** in operating software and equipment to design, lay out and produce camera-ready copies
- **Innovative interest** in producing sample layouts for approval, and in creating illustrations using object-oriented graphics software

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6

- Completion of secondary school is required.
- Completion of a college program in graphic arts, or other training in typography, computer typesetting or desktop publishing is usually required.
- Typing or data entry experience is required for typesetters.

Workplaces/Employers

Commercial printing companies

Firms that specialize in typesetting

In-house printing departments of public- and private-sector establishments

Magazines

Newspapers

Occupational Options

Progression to supervisory positions is possible through experience.

Similar Occupations Classified Elsewhere

Graphic Designers and Illustrating Artists (5241)

Copy stylists, mechanical artists and paste-up artists (in 5223 *Graphic Arts Technicians*)

Proofreaders (in 1452 *Correspondence, Publication and Related Clerks*)

Typesetter supervisors (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1423.2 Markup Persons

Markup Persons mark copy with computer codes and typographic instructions before it is typeset.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	3	3	3	3

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

384

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Copy Marker
Markup Person

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to examine manuscripts, copy and customers' specifications in order to code copy with typographical instructions to prepare material for typesetting
- **Verbal ability** to understand and use printing terms and to follow specifications
- **Spatial and form perception** to visualize styles, layouts and space requirements
- **Methodical interest** in compiling information to mark individual pages of copy with coded instructions on formatting and typesetting specifications
- **Objective interest** in operating computers to mark copy with codes and typographic instructions
- **Innovative interest** in determining type sizes, fonts and layout arrangements, and in estimating space requirements

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6

- Completion of secondary school is required.
- Completion of a college program in graphic arts or other training in typography, computer typesetting or desktop publishing is usually required.
- Typing or data entry experience is required for typesetters.

Workplaces/Employers

Commercial printing companies

Firms that specialize in typesetting

In-house printing departments of public- and private-sector establishments

Magazines

Newspapers

Occupational Options

Progression to supervisory positions is possible through experience.

Similar Occupations Classified Elsewhere

Graphic Designers and Illustrating Artists (5241)

Copy stylists, mechanical artists and paste-up artists (in 5223 *Graphic Arts Technicians*)

Proofreaders (in 1452 *Correspondence, Publication and Related Clerks*)

Typesetter supervisors (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1423.3 Typesetting Input Operators

Typesetting Input Operators use keyboards to enter copy into typesetting systems to produce text that is ready to print.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	3	3	3	3

INTERESTS

MOi

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

- Compositor
- Computer Typesetter
- Phototypesetter
- Typesetter
- Typesetting Input Operator
- Typographer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the principles, operation and applications of typesetting systems and media conversion equipment
- **Verbal ability** to use and interpret printing terms and to follow oral and written instructions
- **Spatial perception** to lay out, position and align copy
- **Form perception** to read and input codes and commands
- **Clerical perception** to avoid and detect errors
- **Motor co-ordination and finger dexterity** to read from original copy while simultaneously inputting into typesetting systems
- **Methodical interest in copying** information to input copy, codes, commands and any subsequent corrections into typesetting systems
- **Objective interest in operating equipment**
- **Innovative interest in processing** and formatting copy transmitted through telecommunications

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6

- Completion of secondary school is required.
- Completion of a college program in graphic arts or other training in typography, computer typesetting or desktop publishing is usually required.
- Typing or data entry experience is required for typesetters.

Workplaces/Employers

Commercial printing companies
 Firms that specialize in typesetting
 In-house printing departments
 Magazines
 Newspapers

Occupational Options

Progression to supervisory positions is possible through experience.

Similar Occupations Classified Elsewhere

Graphic Designers and Illustrating Artists (5241)

Copy stylists, mechanical artists and paste-up artists (in 5223 *Graphic Arts Technicians*)

Proofreaders (in 1452 *Correspondence, Publication and Related Clerks*)

Typesetter supervisors (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1423.4 Typesetting Output Operators

Typesetting Output Operators run typesetting output equipment to produce text that is ready to print.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	3	3	3	3

INTERESTS

MOi

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Typesetter
Typesetting Output Operator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the principles and operation of typesetting output devices
- **Verbal ability** to use and interpret printing terms and to follow oral and written instructions
- **Spatial perception** to lay out, position and align copy
- **Form perception** to compare layouts against original and manuscript copies
- **Clerical perception** to avoid and detect errors
- **Motor co-ordination and finger dexterity** to load and process photosensitive materials
- **Manual dexterity** to tend equipment
- **Methodical interest** in copying information to produce text that is ready to print
- **Objective interest** in operating equipment
- **Innovative interest** in performing routine maintenance

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6

- Completion of secondary school is required.
- Completion of a college program in graphic arts or other training in typography, computer type-setting or desktop publishing is usually required.
- Typing or data entry experience is required for typesetters.

Workplaces/Employers

Commercial printing companies

Firms that specialize in typesetting

In-house printing departments in public- and private-sector establishments

Magazines

Newspapers

Occupational Options

Progression to supervisory positions is possible through experience.

Similar Occupations Classified Elsewhere

Graphic Designers and Illustrating Artists (5241)

Copy stylists, mechanical artists and paste-up artists (in 5223 *Graphic Arts Technicians*)

Proofreaders (in 1452 *Correspondence, Publication and Related Clerks*)

Typesetter supervisors (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1424.1 Telephone Operators

Telephone Operators run computerized and conventional telephone systems to advance and assist the completion of telephone calls.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	3	3	3

INTERESTS

MSO

DATA PEOPLE THINGS (DPT)

564

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2

Examples of Job Titles

- Directory Assistance Operator
- Telephone Operator
- Telephone Service Assistant
- Toll Operator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply techniques of telephone switchboard operations
- **Verbal ability** to request coin deposits for long distance calls, and to inform customers of area code numbers
- **Numerical ability** to calculate billing charges
- **Clerical perception** to consult printed directories and record billing information
- **Motor co-ordination and finger and manual dexterity** to make telephone connections and record time of toll calls
- **Methodical interest in copying** to record billing information and to take special action in cases of an emergency such as fire, crime and accident
- **Social interest in speaking** with customers to provide directory assistance
- **Objective interest in operating** telephone systems to advance and complete customers' telephone calls such as long distance, pay telephone, mobile radio/telephone, person-to-person and emergency calls; and in using computerized directory-listing systems

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2

- Completion of secondary school may be required.
- On-the-job training is provided.

Workplaces/Employers

Telephone companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Receptionists and Switchboard Operators (1414)

Supervisors of telephone operators (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1424.2 Telephone Service Observers

Telephone Service Observers assist, monitor and train telephone operators.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	3	3	3

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

538

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2, 4

Examples of Job Titles

Telephone Service Observer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to monitor calls between telephone company employees and subscribers in order to assess service quality
- **Verbal ability** to understand and apply the policies and regulations of telephone service companies and to develop training courses
- **Clerical perception** to record when operators make technical errors and do not adhere to company policies
- **Motor co-ordination and finger and manual dexterity** to use special intercept equipment in order to monitor the work of telephone operators
- **Methodical interest** in copying information about service quality to standard reports
- **Directive interest** in supervising the work of operators to ensure that they complete calls in an accurate and timely manner
- **Social interest** in delivering training courses

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2, 4

- Completion of secondary school may be required.
- On-the-job training is provided.
- Experience as a telephone operator is usually required for telephone service observers.

Workplaces/Employers

Telephone companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Receptionists and Switchboard Operators (1414)

Supervisors of telephone operators (in 1211 *Supervisors, General Office and Administrative Support Clerks*)

1431 Accounting and Related Clerks

Accounting and Related Clerks calculate, prepare and process bills, invoices, accounts payable and receivable, budgets and other routine financial records according to established procedures.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	3	4
INTERESTS								
Mlo								
DATA PEOPLE THINGS (DPT)								
384								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	1	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
3, 4								

Examples of Job Titles

- Accounting Clerk
- Accounts Payable Clerk
- Accounts Receivable Clerk
- Audit Clerk
- Billing Clerk
- Budget Clerk
- Costing Clerk
- Deposit Clerk
- Finance Clerk
- Freight Rate Clerk
- Invoice Clerk
- Ledger Clerk
- Tax Clerk
- Tax Return Preparer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to process financial records and business transactions such as accounts payable and receivable
- **Verbal ability** to complete reports and answer customers' questions
- **Numerical ability** to calculate and prepare bills, invoices, account statements and other financial statements, and to calculate costs of materials, overhead and other expenses based on estimates, quotations and price lists
- **Clerical perception** to verify financial records and business transactions
- **Finger dexterity** to input data on computerized systems and enter figures into ledgers of manual systems
- **Methodical interest** in compiling information to issue bills, invoices, account statements and other financial statements according to established procedures; and in gathering budget data and documents based on estimated revenues and expenses and previous budgets, and maintaining filing and record systems
- **Innovative interest** in balancing financial records and business transactions
- **Objective interest** in operating computerized systems and office equipment

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is usually required.
- Completion of college or other courses in accounting, bookkeeping or computer operation may be required.

Workplaces/Employers

Throughout the private and public sectors

Occupational Options

Progression to supervisory or skilled financial occupations, such as accounts payable supervisor or bookkeeper, is possible with additional training and experience.

Similar Occupations Classified Elsewhere

Banking, Insurance and Other Financial Clerks (1434)

Bookkeepers (1231)

Collectors (1435)

Financial Auditors and Accountants (1111)

Payroll Clerks (1432)

Supervisors, Finance and Insurance Clerks (1212)

1432 Payroll Clerks

Payroll Clerks collect, verify and process payroll information and determine pay-and-benefit entitlements for employees within departments, companies and other establishments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	2	3	3	4

INTERESTS

MIs

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

- Benefits Officer
- Pay Advisor
- Pay and Benefits Administrator
- Pay and Benefits Clerk
- Pay Clerk
- Payroll Clerk
- Payroll Officer
- Salary Administration Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to process forms and documents for the administration of benefits such as pension plans and unemployment and medical insurance
- **Verbal ability** to complete forms and documents
- **Numerical ability** to calculate pay-and-benefit entitlements and prepare statements of earnings for employees
- **Spatial and form perception** to verify statements of earnings indicating gross and net salaries and deductions such as taxes, union dues and insurance and pension plans
- **Clerical perception** to verify forms and documents and reconcile issued payrolls to bank statements
- **Motor co-ordination and finger dexterity** to use computer systems and office machines
- **Methodical interest** in compiling information for statistical reports, statements and summaries and in maintaining records of employee attendance, leave and overtime
- **Innovative interest** in operating computerized systems to keep records and prepare and balance period-end reports
- **Social interest** in speaking with employees to provide information on payroll matters, benefit plans and collective agreement provisions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is usually required.
- Completion of college or other courses in accounting, bookkeeping or payroll administration
or
experience as a financial clerk is usually required.

Workplaces/Employers

Establishments throughout the private and public sectors

Payroll administration companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Administrative Clerks (1441)

Personnel and Recruitment Officers (1223)

Personnel Clerks (1442)

Supervisors of payroll clerks (in 1212
Supervisors, Finance and Insurance Clerks)

1433 Tellers, Financial Services

Tellers in this group process customers’ financial transactions and provide information on related banking products and services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	2	4	3	4

INTERESTS

MSo

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	2	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3

Examples of Job Titles

- Bank Teller
- Customer Service Representative, Financial Services
- Foreign Exchange Teller
- Senior Teller
- Teller Trainee

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to obtain and process information in order to provide services such as opening accounts and savings plans, and selling bonds
- **Numerical ability** to process cash deposits and withdrawals, cheques, transfers, bills, credit card payments, money orders, certified cheques and other related banking transactions
- **Clerical perception** to resolve problems and discrepancies concerning customers’ accounts
- **Methodical interest in compiling** information to prepare customer statements and other correspondence for mailing; and in sorting and filing deposit slips and cheques
- **Social interest in speaking** with customers to answer inquiries and to sell travellers’ cheques, foreign currency and money orders
- **Objective interest in operating** computer programs, calculators and adding machines to balance daily transactions

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 2 Standing and/or walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is required.
- On-the-job training is provided.

Workplaces/Employers

Banks

Credit unions

Financial institutions

Trust companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Banking, Insurance and Other Financial Clerks (1434)

Customer Service, Information and Related Clerks (1453)

Supervisors of tellers (in 1212 Supervisors, Finance and Insurance Clerks)

1434.1 Bank Clerks

Bank Clerks compile, process and maintain banking and other financial information.

Profile Summary

APTITUDES									
G	V	N	S	P	Q	K	F	M	
3	3	3	4	4	3	3	3	4	
INTERESTS									
MIs									
DATA PEOPLE THINGS (DPT)									
364									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	1	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
3, 4, 5									

Examples of Job Titles

- Bank Clerk
- Credit Clerk
- Ledger Control Clerk
- Loan Clerk
- Mortgage Clerk
- Personal Lines Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to process loan and mortgage applications and payments, retirement savings plan applications, term deposits, drafts and money orders
- **Verbal ability** to notify customers regarding account discrepancies and captured bank cards
- **Numerical ability** to calculate service charges and interest payments
- **Clerical perception** to verify automatic teller machine transactions and ledger entries
- **Motor co-ordination and finger dexterity** to use office equipment and handle money
- **Methodical interest** in compiling information for records of deposits, withdrawals, loan and mortgage payments, cheques and the purchase, sale and exchange of securities
- **Innovative interest** in operating computer systems to balance automatic teller machine transactions and ledger entries
- **Social interest** in speaking with customers to answer questions and provide information on banking products, policies and services; may sell drafts, money orders, travellers' cheques and foreign currency, and rent safety deposit boxes or open and close savings, chequing and other accounts

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4, 5

- Completion of secondary school is usually required.
- On-the-job training and short-term training courses or programs specific to the financial establishment are usually required.

Workplaces/Employers

Banks

Credit companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Bookkeepers (1231)

Customer Service, Information and Related Clerks (1453)

General Office Clerks (1411)

Supervisors, Finance and Insurance Clerks (1212)

Tellers, Financial Services (1433)

1434.2 Insurance Clerks

Insurance Clerks compile, process and maintain insurance information.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	3	3	4

INTERESTS

MI5

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4, 5

Examples of Job Titles

- Actuarial Clerk
- Benefit and Entitlement Clerk
- Dental Claims Clerk
- Insurance Clerk
- Premium Rater
- Senior Claims Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to review and process insurance applications
- **Verbal ability** to reply to correspondence about routine insurance matters
- **Numerical ability** to calculate insurance premiums, pension benefits and annuity payments
- **Clerical perception** to verify insurance coverage, premiums paid and other insurance information
- **Motor co-ordination and finger dexterity** to use office equipment
- **Methodical interest in compiling** and maintaining claims data, rates and insurance data and records
- **Innovative interest in operating** computer equipment and office machines to process enrolments, cancellations, claims transactions, policy changes and premium payments
- **Social interest in speaking** with customers to answer questions and provide information on insurance products, policies and services

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4, 5

- Completion of secondary school is usually required.
- On-the job-training and short-term training courses or programs specific to the financial establishment are usually required.

Workplaces/Employers

Private and public insurance establishments

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Bookkeepers (1231)

Customer Service, Information and Related Clerks (1453)

General Office Clerks (1411)

Supervisors, Finance and Insurance Clerks (1212)

Tellers, Financial Services (1433)

1434.3 Other Financial Clerks

Financial Clerks in this group compile, process and maintain banking, insurance and other financial information.

Profile Summary

APTITUDES

G

V

N

S

P

Q

K

F

M

3

3

3

4

4

3

3

3

4

INTERESTS

MIs

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V

C

H

B

L

S

2

0

2

1

1

1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4, 5

Examples of Job Titles

Dividend Clerk

Real Estate Clerk

Securities Clerk

Descriptor Profile		
Main Characteristics		
Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:		
■ General learning ability to review and analyze documents	■ Numerical ability to make mathematical calculations	■ Methodical interest in compiling and maintaining rental, sale and other real estate listings, and to maintain stock, bond and other securities listings
■ Verbal ability to reply to correspondence	■ Clerical perception to sort and verify real estate, securities and other financial transactions	■ Innovative interest in operating computer systems to process information
	■ Motor co-ordination and finger dexterity to use office equipment	■ Social interest in speaking with customers to answer questions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4, 5

- Completion of secondary school is usually required.
- On-the-job training and short-term training courses or programs specific to the financial establishment are usually required.

Workplaces/Employers

Credit companies

Financial establishments throughout the private and public sector

Investment firms

Real estate companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

*Bookkeepers (1231)**Customer Service, Information and Related Clerks (1453)**General Office Clerks (1411)**Supervisors, Finance and Insurance Clerks (1212)**Tellers, Financial Services (1433)*

1435 Collectors

Collectors locate debtors to make collection arrangements and collect payments on overdue accounts and bad cheques.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MSi

DATA PEOPLE THINGS (DPT)

368

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

3, R

Examples of Job Titles

- Bill Collector
- Collection Clerk
- Collection Officer
- Collections Investigation Officer
- Collector
- Credit and Collection Clerk
- Locator
- Skip Tracer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to recommend legal action or discontinuation of service in cases where payments are not made
- **Verbal ability** to notify debtors of overdue payments and accounts by telephone, mail and registered mail, to continue the notification process if replies are not received and to answer correspondence
- **Numerical ability and clerical perception** to calculate amounts due
- **Methodical interest in compiling** and maintaining records and files
- **Social interest in speaking** with debtors in person or by telephone to collect amounts due and to make payment arrangements; may contact debtors' friends, neighbours, relatives and employers to obtain information
- **Innovative interest** in tracing and locating debtors

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

3, R

- Completion of secondary school is usually required.
- A period of on-the-job training is usually provided.
- A collections' licence issued by the province or territory of employment is usually required.

Workplaces/Employers

Banks

Collection agencies

Credit unions

Department stores

Financial and licensing departments within governments

Loan companies

Utility companies

Occupational Options

Progression to senior or supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Accounts receivable clerks (in 1431 *Accounting and Related Clerks*)

Collections supervisors (in 1212 *Supervisors, Finance and Insurance Clerks*)

Tax collection officers (in 1228 *Immigration, Unemployment Insurance and Revenue Officers*)

1441 Administrative Clerks

Administrative Clerks compile, verify, record and process forms and documents such as applications, licences, permits, contracts, registrations and requisitions according to procedures, guidelines and schedules.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	3	4

INTERESTS

Mlo

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

- Administrative Clerk
- Application Clerk
- Authorization Clerk
- By-law Clerk
- Contract Clerk
- Customs Clerk
- Documentation Clerk
- Import Clerk
- Licence Clerk
- Office Administration Clerk
- Passport Clerk
- Registration Clerk
- Registry Clerk
- Ward Clerk
- Warranty Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to authorize and issue licences, permits, registration papers, reimbursements and other material after requesting documents that have been processed and approved
- **Verbal ability** to prepare routine reports and provide information to staff and general public regarding company and program rules, regulations and procedures
- **Numerical ability and clerical perception** to verify, record and process forms and documents
- **Methodical interest in compiling** applications, licences, permits, contracts, registrations, requisitions and other forms and documents according to procedures and schedules; and in maintaining inventories of office supplies and ordering supplies
- **Innovative interest in speaking** with staff to assist in the co-ordination of administrative procedures such as budget submissions, contracts administration and work schedules; may organize and co-ordinate flow of work for general office clerks, clerk-typists and word processor operators
- **Objective interest in operating** computerized processing systems

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is usually required.
- Completion of college or other courses in business administration is usually required.
- Ability to type or operate a computer may be required.
- Some clerical experience may be required.

Workplaces/Employers

Throughout the private and public sectors

Occupational Options

Progression to supervisory positions is possible with experience.

Progression to officer-level positions is possible with additional training and experience.

Similar Occupations Classified Elsewhere

Administrative Officers (1221)

Court Clerks (1443)

Executive Assistants (1222)

General Office Clerks (1411)

Personnel Clerks (1442)

Supervisors, General Office and Administrative Support Clerks (1211)

1442 Personnel Clerks

Personnel Clerks assist personnel officers and human resource specialists and compile, maintain and process information relating to staffing, recruitment, training, labour relations, performance evaluations and classifications.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MSo

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

- Classification Clerk
- Employment Clerk
- Human Resources Assistant
- Human Resources Clerk
- Labour Relations Clerk
- Personnel Clerk
- Staffing Clerk
- Training Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to process documents relating to personnel activities such as staffing, recruitment, training, grievances, performance evaluations and classifications
- **Verbal ability** to compile and prepare reports and documents relating to personnel activities, and to respond to telephone and written inquiries from staff and the general public regarding personnel matters
- **Numerical ability** to score routine employment tests such as typing and proofreading tests
- **Clerical perception** to verify and register documents
- **Methodical interest in compiling** information to maintain and update manual and computerized filing and registration systems; and in administering routine employment tests
- **Social interest in speaking** with individuals to conduct basic reference checks, arrange for advertising and posting of job vacancies, assist in screening and rating of job applicants and arrange for in-house training and external training activities
- **Objective interest in operating** computerized filing and registration systems

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is usually required.
- Completion of college or other courses in personnel administration may be required.
- Ability to type or operate a computer may be required.
- Some clerical experience may be required.

Workplaces/Employers

Personnel departments throughout the private and public sectors

Occupational Options

Progression to supervisory positions is possible with experience.

Progression to officer-level positions is possible with additional training and experience.

Similar Occupations Classified Elsewhere

Administrative Clerks (1441)

Payroll Clerks (1432)

Personnel and Recruitment Officers (1223)

Specialists in Human Resources (1121)

College and Other Vocational Instructors (4131)

1443 Court Clerks

Court Clerks perform support functions in courts of law such as calling courts to order, preparing court dockets and maintaining exhibits.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MSd

DATA PEOPLE THINGS (DPT)

367

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3

Examples of Job Titles

- Court Clerk
- Court Clerk/Crier
- Judicial Clerk
- Provincial Court Clerk

Descriptor Profile

Main Characteristics

Occupatons in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to perform clerical support functions in courts of law
- **Verbal ability** to prepare court files, court dockets and other documents

- **Numerical ability and clerical perception** to receive, disburse and account for fines, fees and trust moneys
- **Methodical interest in compiling** information to update and maintain court office indexes and files on actions taken by courts and responses to court decisions
- **Social interest in speaking** to assist the public in court offices; and in reading charges and taking pleas from defendants
- **Directive interest in handling** the preparation of exhibits; and in calling courts of law to order

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is required.
- On-the-job training is provided.

Workplaces/Employers

Federal and provincial courts

Occupational Options

Progression to supervisory or court officer positions is possible with experience.

Similar Occupations Classified Elsewhere

Court Officers and Justices of the Peace (1227)

Court Recorders and Medical Transcriptionists (1244)

Court clerk supervisors (in 1227
Court Officers and Justices of the Peace)

1451 Library Clerks

Library Clerks issue and receive library materials, sort and shelve books, provide general library information to users and perform clerical functions such as filing, typing and word processing.

Profile Summary

APTITUDES									
G	V	N	S	P	Q	K	F	M	
3	3	4	4	3	3	3	4	4	
INTERESTS									
MSo									
DATA PEOPLE THINGS (DPT)									
677									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	3	1	2				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
3									

Examples of Job Titles

- Circulation Clerk
- Interlibrary Loan Clerk
- Library Clerk
- Library Page
- Periodicals Clerk
- Reference Clerk
- Shelving Clerk - Library

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to provide general library information to users and to perform clerical functions such as filing, typing and word processing
- **Form perception** to sort books and other materials
- **Clerical perception** to transcribe and check entries such as names, titles and numbers
- **Motor co-ordination** to sort and reshelve books and to perform clerical duties
- **Methodical interest** in comparing information to reshelve books and other materials
- **Social interest** in assisting users to gain access to materials and to make interlibrary loans
- **Objective interest** in handling to issue and receive books and other materials

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light
-

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 3

- Completion of secondary school is usually required.
-

Workplaces/Employers

Establishments with library services

Libraries

Similar Occupations Classified Elsewhere

Librarians (5111)

Supervisors, Library, Correspondence and Related Information Clerks (1213)

Library technicians (in 5211 Library and Archive Technicians and Assistants)

1452.1 Classified Advertising Clerks

Classified Advertising Clerks take orders, calculate rates, bill customers for classified advertisements, write and edit ad copy and perform other related clerical duties.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	3	3	3	3	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

564

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

Advertising Clerk
Classified Advertising Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to receive customers' orders for classified advertising, to calculate advertising rates and to bill customers

- **Clerical perception** to edit copy and verify billing
- **Finger dexterity** to type and carry out word processing functions
- **Methodical interest in copying** to compose copy for advertisements; and in maintaining files of orders

- **Innovative interest in operating** computers to compile material for publication; may set up advertisements using knowledge of formats, sizes of type and rates
- **Directive interest in speaking** to advise customers on issues regarding ads such as rates, space and cancellation privileges

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is required.
- Additional courses in writing, journalism or a related field may be required.
- Previous clerical or administrative experience may be required.

Workplaces/Employers

Newspapers

Publishing firms

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications
(5124)

Supervisors, Library, Correspondence and Related Information Clerks (1213)

1452.2 Correspondence Clerks

Correspondence Clerks write routine correspondence, proofread material and perform other related clerical duties.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

Correspondence Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** and **verbal ability** to read incoming correspondence, to write routine business and government correspondence, such as replies to requests for information and assistance, and to perform other related clerical duties such as typing and word processing
- **Clerical perception** to proofread material
- **Finger dexterity** to perform clerical duties
- **Methodical interest** in **copying** information to complete form letters and gather data for replies; may keep files of correspondence sent, received and requiring further action
- **Innovative interest** in **operating** computers to compose letters regarding items such as damage claims, credit and billing enquiries and service complaints
- **Directive interest** in routing correspondence to individuals or departments for investigation and replies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is required.
- Additional courses in writing, journalism or a related field may be required.
- Previous clerical or administrative experience may be required.

Workplaces/Employers

Establishments throughout the private and public sectors

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications (5124)

Supervisors, Library, Correspondence and Related Information Clerks (1213)

1452.3 Editorial Assistants and Publication Clerks

Editorial Assistants and Publication Clerks assist in the preparation of material for publication, proofread material, conduct research to verify facts contained in material to be published and perform other related clerical duties.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

384

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

- Directory Compiler
- Editing Clerk
- Editorial Assistant
- Publication Clerk
- Translation Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to assist in preparing and editing material for publication and to perform other related clerical duties such as typing and word processing
- **Clerical perception** to proofread materials
- **Finger dexterity** to perform clerical duties
- **Methodical interest in compiling** information to conduct research and prepare material for publication
- **Innovative interest** in verifying facts, dates and statistics from standard reference sources
- **Directive interest in operating** computers to assist in the publication of periodicals, advertisements, catalogues, directories and other material

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is required.
- Additional courses in writing, journalism or a related field may be required.
- Previous clerical or administrative experience may be required.

Workplaces/Employers

Establishments throughout the private and public sectors

Newspapers

Publishing firms

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications
(5124)

Supervisors, Library, Correspondence and Related Information Clerks
(1213)

1452.4 Proofreaders

Proofreaders read proofs before publication to detect errors, mark copy for correction and perform other related clerical duties.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	3	2	3	3	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

587

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

Proofreader

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** and **clerical perception** to read proofs for grammatical, typographical and compositional errors
- **Verbal ability** to discuss grammatical and compositional discrepancies and obtain appropriate signatures to authorize changes

- **Finger dexterity** to mark proofs with pencils and pens
- **Methodical interest** in copying information to mark material for errors using codes that indicate deviations from copy and to instruct typesetters to change typographical details
- **Innovative interest** in correcting compositional errors in proofs
- **Directive interest** in handling materials to place marked proofs in trays for corrections and to write initials, times and dates on proofs to indicate approvals; and in authorizing type into final form for printing

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is required.
- Additional courses in writing, journalism or a related field may be required.
- Previous clerical or administrative experience may be required.

Workplaces/Employers

Establishments throughout the private and public sectors

Newspapers

Publishing firms

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications
(5124)

Supervisors, Library, Correspondence and Related Information Clerks
(1213)

1452.5 Readers and Press Clippers

Readers and Press Clippers read newspapers, magazines, press releases and other publications to locate, file and distribute articles and to perform other related clerical duties.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	3	3	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

684

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

Press Clipper
Reader

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to read newspapers, magazines, press releases and other publications, and to perform other related clerical duties
- **Clerical perception** to mark items to be clipped using established code systems
- **Finger dexterity** to use computers, perform clerical duties and clip articles of interest
- **Methodical interest** in comparing information to file articles of interest to staff and clients; may prepare cross-indexes of articles for future reference
- **Innovative interest** in locating articles of interest for staff and clients
- **Directive interest** in operating computers to circulate articles; and in posting articles on bulletin boards

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is required.
- Additional courses in writing, journalism or a related field may be required.
- Previous clerical or administrative experience may be required.

Workplaces/Employers

Establishments throughout the private and public sectors

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Professional Occupations in Public Relations and Communications (5124)

Supervisors, Library, Correspondence and Related Information Clerks (1213)

1453.1 Customer Service Clerks in Retail Establishments

Customer Service Clerks in Retail Establishments answer questions and investigate complaints regarding establishments' goods, services and policies, and provide services such as receiving payments and processing requests for services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

Msi

DATA PEOPLE THINGS (DPT)

568

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3

Examples of Job Titles

- Complaints Clerk
- Counter Enquiries Clerk
- Courtesy Desk Clerk
- Customer Service Clerk
- Public Relations Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to receive credit and employment applications and to process requests for services
- **Verbal ability** to answer customers' questions
- **Numerical ability** to calculate refund and credit amounts
- **Clerical perception** to keep records showing amount of payments and balances due on accounts
- **Methodical interest** in copying information to receive account payments
- **Social interest** in speaking with customers to provide information
- **Innovative interest** in investigating complaints; and in arranging for refunds, exchanges and credit for returned merchandise

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.
- Clerical or sales experience may be required.

Workplaces/Employers

Retail establishments

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Receptionists and Switchboard Operators (1414)

Retail Salespersons and Sales Clerks (6421)

Supervisors, Library, Correspondence and Related Information Clerks (1213)

Customer service representatives in banks and other financial institutions (in 1433 *Tellers, Financial Services*)

General ticket and information clerks (airline) (in 6433 *Airline Sales and Service Agents*)

Ticket and information clerks (except airline) [in 6434 *Ticket and Cargo Agents and Related Clerks (Except Airline)*]

1453.2 Customer Service Clerks in Insurance, Telephone, Utility and Similar Companies

Customer Service Clerks in insurance, telephone, utility and similar companies explain types and costs of services, obtain and process information for provision of services, arrange for billing and receive payment.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4
INTERESTS								
Msi								
DATA PEOPLE THINGS (DPT)								
568								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
3								

Examples of Job Titles

- Complaints Clerk
- Counter Enquiries Clerk
- Courtesy Desk Clerk
- Customer Service Clerk
- Public Relations Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to process information required to provide services

- Verbal ability to answer customers' questions
- Numerical ability and clerical perception to calculate costs of services and keep billing and payment records
- Methodical interest in copying information to receive payments
- Social interest in speaking with customers to explain types and costs of services
- Innovative interest in obtaining information required to provide services; and in arranging for billing

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.
- Clerical or sales experience may be required.

Workplaces/Employers

Insurance companies

Telephone companies

Utility companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Receptionists and Switchboard Operators (1414)

Retail Salespersons and Sales Clerks (6421)

Supervisors, Library, Correspondence and Related Information Clerks (1213)

Customer service representatives in banks and other financial institutions (in 1433 *Tellers, Financial Services*)

General ticket and information clerks (airline) (in 6433 *Airline Sales and Service Agents*)

Ticket and information clerks (except airline) [in 6434 *Ticket and Cargo Agents and Related Clerks (Except Airline)*]

1453.3 Information Clerks

Information Clerks provide information to the public about goods, services, schedules, rates, regulations and policies in response to telephone and in-person questions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MSi

DATA PEOPLE THINGS (DPT)

568

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3

Examples of Job Titles

- Account Information Clerk
- Bus Information Clerk
- Counter Enquiries Clerk
- Enquiries Clerk
- Hospital Information Clerk
- Lost and Found Clerk
- Tourist Information Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** and verbal ability to process requests for services and answer questions
- **Numerical ability** to determine rates
- **Clerical perception** to read schedules and keep records
- **Methodical interest** in copying information about telephone and in-person questions; may keep record of questions asked
- **Social interest** in speaking with customers and the public to provide information concerning goods, services, schedules, rates, regulations and policies
- **Innovative interest** in obtaining information to respond to requests and questions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.
- Clerical or sales experience may be required.

Workplaces/Employers

Establishments throughout the private and public sectors

Insurance companies

Retail establishments

Telephone companies

Utility companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Receptionists and Switchboard Operators (1414)

Retail Salespersons and Sales Clerks (6421)

Supervisors, Library, Correspondence and Related Information Clerks (1213)

Customer service representatives in banks and other financial institutions (in 1433 *Tellers, Financial Services*)

General ticket and information clerks (airline) (in 6433 *Airline Sales and Service Agents*)

Ticket and information clerks (except airline) [in 6434 *Ticket and Cargo Agents and Related Clerks (Except Airline)*]

1454.1 Survey Interviewers

Survey Interviewers contact individuals to gather information for market research, public opinion polls and election and census enumeration.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	3	3	4

INTERESTS

MSI

DATA PEOPLE THINGS (DPT)

564

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

2

Examples of Job Titles

- Census Enumerator
- Election Enumerator
- Interview Clerk
- Poll Clerk
- Public Opinion Collector
- Survey Interviewer
- Telephone Survey Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** and verbal ability to contact individuals by telephone and in-person, and to explain the purposes of interviews
- **Numerical ability** and clerical perception to code, tabulate, record and enter responses
- **Finger dexterity** to input responses into computer systems
- **Methodical interest** in copying information to record responses on paper or into computer databases
- **Social interest** in speaking with respondents to ask questions following the outlines of questionnaires and surveys
- **Innovative interest** in operating computer-assisted interviewing systems to enter responses into computer databases

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

2

- Completion of secondary school may be required.
- Experience in the operation of a computer may be required.
- On-the-job training is usually provided.

Workplaces/Employers

Government departments and agencies

Market research and polling firms

Utility companies and other establishments

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Customer Service, Information and Related Clerks (1453)

Telemarketers (in 6623 *Other Elemental Sales Occupations*)

1454.2 Statistical Clerks

Statistical Clerks code and compile interview and other data into reports, lists, directories and other documents. This group also includes clerks who observe and record information on traffic flow and who take utility meter readings.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
3	3	3	4	4	3	3	3	4	
INTERESTS									
MIO									
DATA PEOPLE THINGS (DPT)									
384									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	1	1	1	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
2									

Examples of Job Titles
Coding Clerk
Statistical Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability and clerical perception** to check information for completeness and accuracy
- **Verbal ability** to prepare reports, lists, directories and other documents

- **Numerical ability** to tabulate statistics for use in statistical studies
- **Finger dexterity** to enter data into computer systems
- **Methodical interest in compiling** information to assemble interview and other data into reports and lists; and in coding information according to established coding manuals

- **Innovative interest** in conducting routine statistical analyses of data
- **Objective interest in operating** computers for data entry and analyses

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated, inside climate

Employment Requirements

Education/Training

2

- Completion of secondary school may be required.
- Experience in the operation of a computer may be required.
- On-the-job training is usually provided.

Workplaces/Employers

Government departments and agencies

Market research and polling firms

Utility companies

Similar Occupations Classified Elsewhere

*Correspondence, Publication and Related Clerks (1452)**Customer Service, Information and Related Clerks (1453)**Telemarketers (in 6623 Other Elemental Sales Occupations)*

1461.1 Postal Clerks

Postal Clerks serve customers and record transactions at sales counters and postal wickets.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	3	4

INTERESTS

Mis

DATA PEOPLE THINGS (DPT)

567

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	2	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2

Examples of Job Titles

- Bus Parcel Express Clerk
- Express Mail Clerk
- Postal Clerk
- Postal Counter Clerk
- Postal Wicket Clerk
- Rail Express Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to process mail and parcels in post offices
- **Numerical ability and clerical perception** to calculate postage on letters, parcels and registered mail, and to record and receive payments
- **Finger dexterity** to affix postage on letters, parcels and registered mail
- **Methodical interest in copying** information to complete forms regarding changes of address, theft and loss of mail; and in signing or obtaining signatures from recipients for registered and special delivery mail, and keeping records
- **Innovative interest in handling** to route mail to proper delivery streams; and in balancing daily transactions
- **Social interest in speaking** with customers to answer questions and sell stamps, prepaid mail, courier envelopes and money orders

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

2 Standing and/or walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2

- Some secondary school education is required.

Workplaces/Employers

Canada Post Corporation

Courier services

Establishments throughout the public and private sectors

Parcel express services

Occupational Options

Progression to supervisory positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

*Couriers and Messengers (1463)**Letter Carriers (1462)**Supervisors, Mail and Message Distribution Occupations (1214)*

1461.2 Mail Sorters

Mail Sorters process and sort mail and parcels in post offices and mail processing plants.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	4	4	3	4	3	4

INTERESTS

Mio

DATA PEOPLE THINGS (DPT)

587

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2

Examples of Job Titles

Mail Sorter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** and **clerical perception** to sort mail and parcels in post offices and mail processing plants, and to verify addresses
- **Finger dexterity** to tie mail in bundles
- **Methodical interest** in **copying** information to label mail; and in sorting mail according to destination
- **Innovative interest** in **handling** to bag and route sorted mail to proper delivery streams; and in searching directories to find correct addresses for redirected mail
- **Objective interest** in using automated mail-sorting equipment

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2

- Some secondary school education is required.

Workplaces/Employers

Canada Post Corporation

Courier services

Establishments throughout the public and private sectors

Parcel express services

Occupational Options

Progression to supervisory positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

*Couriers and Messengers (1463)**Letter Carriers (1462)*
*Supervisors, Mail and Message
Distribution Occupations (1214)*

1461.3 Mail Room Clerks

Mail Room Clerks sort mail and parcels in internal mail rooms.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	4	4	3	4	3	4

INTERESTS

Mio

DATA PEOPLE THINGS (DPT)

587

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2

Examples of Job Titles

- Mail Clerk
- Mail Room Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to process mail and parcels in internal mail rooms
- **Clerical perception** to weigh outgoing mail and calculate postage
- **Finger dexterity** to affix postage to outgoing mail
- **Methodical interest in copying** information to address outgoing mail according to mailing lists; and in sorting incoming and outgoing mail according to destination
- **Innovative interest in handling** to bundle and route mail to proper delivery streams
- **Objective interest** in using autmated mail-sorting equipment

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2

- Some secondary school education is required.

Workplaces/Employers

Canada Post Corporation

Courier services

Establishments throughout the public and private sectors

Parcel express services

Occupational Options

Progression to supervisory positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

*Couriers and Messengers (1463)**Letter Carriers (1462)**Supervisors, Mail and Message**Distribution Occupations (1214)*

1462 Letter Carriers

Letter Carriers sort and deliver mail, record delivery of registered mail and collect money for cash-on-delivery (C.O.D.) parcels.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	4	4	4	3	3	4	3

INTERESTS

Mos

DATA PEOPLE THINGS (DPT)

577

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	1	2	2	3

ENVIRONMENTAL CONDITIONS (EC)

L3, L4

EDUCATION/TRAINING

2

Examples of Job Titles

- Letter Carrier
- Mail Carrier
- Rural Mail Carrier

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to deliver mail along established routes
- **Clerical perception** to collect payments for cash-on-delivery (C.O.D.) service
- **Finger and manual dexterity** to organize mail by address and to load mail into mailbags
- **Methodical interest in copying** information to record deliveries of registered mail
- **Objective interest in handling** to deliver letters, small parcels, telegrams, special delivery and express mail and other printed matter, and to return undeliverable mail to postal stations
- **Social interest in assisting** customers by leaving notices when items can not be delivered and specifying locations where they can be picked up; and in obtaining signatures for registered mail

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 0 Not relevant

Hearing

- 1 Limited

Body Position

- 2 Standing and/or walking

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L3 Outside
L4 In a vehicle or cab

Employment Requirements

Education/Training

2

- Some secondary school education is required.
- Two weeks to one month of training is provided by Canada Post Corporation.

Workplaces/Employers

Canada Post Corporation

Occupational Options

Progression to supervisory positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Couriers and Messengers (1463)

Mail, Postal and Related Clerks (1461)

Letter carrier supervisors (in 1214 Supervisors, Mail and Message Distribution Occupations)

1463 Couriers and Messengers

Couriers and Messengers pick up and deliver letters, parcels, newspapers, flyers and other items within and between establishments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	4	4	4	3	4	4	4

INTERESTS

Mos

DATA PEOPLE THINGS (DPT)

577

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	1	4	2	3

ENVIRONMENTAL CONDITIONS (EC)

L3, L4*

EDUCATION/TRAINING

2, R

Examples of Job Titles

- Bank Messenger
- Courier
- Delivery Person, Courier Service
- Flyer Distributor
- Messenger
- Newspaper Carrier
- Runner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to pick up and deliver printed materials and other items
- **Clerical perception** to collect payments
- **Methodical interest in copying** information to keep records of delivery transactions
- **Objective interest in handling** to deliver newspapers, flyers, handbills, telephone directories and similar items to residences and businesses, and to hand-deliver mail to addressees within an organization and to establishments by walking, cycling or driving
- **Social interest** in assisting customers by picking up and delivering messages, letters, envelopes, parcels, cheques, bonds, securities and other items

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 0 Not relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 3 Medium
-

Environmental Conditions

Location

- L3 Outside
- L4* In a vehicle or cab

Employment Requirements

Education/Training
2, R

- Some secondary school education is required.
 - Eligibility for bonding may be required.
 - A valid driver's licence is required for some occupations in this group.
-

Workplaces/Employers

Courier service companies
Establishments throughout the private and public sectors

Occupational Options

There is some mobility into other delivery occupations such as delivery drivers.

Similar Occupations Classified Elsewhere

Delivery Drivers (7414)

Letter Carriers (1462)

Remarks

*Environmental Conditions

- For some occupations in this group, Location L4 (In a vehicle or cab) may also apply.

1471 Shippers and Receivers

Shippers and Receivers ship, receive and record the movement of parts, supplies, materials, equipment and stock to and from establishments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	3	3	4

INTERESTS

Mod

DATA PEOPLE THINGS (DPT)

384

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	4	1*	3

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

3

Examples of Job Titles

- Freight Receiver
- Freight Shipper
- Import-Freight Clerk
- Receiver
- Shipper
- Shipper/Receiver
- Shipping Agent
- Shipping and Receiving Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to determine methods of shipment and to prepare shipping documents
- **Verbal and numerical ability** to prepare shipping instructions, bills of lading, invoices and other documents

- **Clerical perception** to inspect and verify incoming goods against invoices and other documents, to record shortages and to reject damaged goods
- **Motor co-ordination** to assemble containers and crates, and to pack goods to be shipped
- **Finger dexterity** to affix identifying information and shipping instructions on goods

- **Methodical interest** in compiling information to maintain internal record-keeping systems
- **Objective interest** in operating computers to keep records; and in unpacking and routing goods to appropriate storage areas; may operate fork lifts, hand trucks and other equipment to load, unload, transport and store goods
- **Directive interest** in overseeing loading and unloading of goods from trucks and other conveyances

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

4 Other body positions

Limb Co-ordination

1* Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.
- Experience in a related clerical occupation or as a warehouse worker may be required.

Workplaces/Employers

Commercial and industrial establishments

Manufacturing companies

Retail establishments

Wholesale companies

Occupational Options

Progression to supervisory positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

*Material Handlers (7452)**Purchasing and Inventory Clerks (1474)**Storekeepers and Parts Clerks (1472)*

Remarks

*Physical activities

- For some occupations in this group, Limb Co-ordination 2 (Multiple limb co-ordination) may also apply.

1472 Storekeepers and Parts Clerks

Storekeepers and Parts Clerks sort, store and issue parts and supplies for use by the establishments in which they work and for sale to the public.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	3	4	3	4	4	4

INTERESTS

MOS

DATA PEOPLE THINGS (DPT)

564

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2, 5, 6, R

Examples of Job Titles

- Ammunition Storekeeper
- Automotive Partsperson
- Material Keeper
- Medical Supply Clerk
- Motor Vehicle Parts Clerk
- Parts Clerk
- Partsperson
- Parts Supplier
- Ship Storeman/woman
- Storekeeper
- Tool Room Attendant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to receive and sort incoming parts, supplies and materials, and to process incoming requisitions and issue or distribute parts and supplies for internal usage

- **Spatial perception** to store items in an orderly and accessible manner in warehouses, tool rooms, supply rooms and other areas
- **Clerical perception** to prepare requisition orders and keep inventory records
- **Methodical interest in copying** information to prepare requisition orders for parts, supplies and materials, and to maintain records of amount, kind and location of parts and supplies on hand

- **Objective interest in operating** computerized inventory systems; and in keeping records using manual systems
- **Social interest in speaking** with customers to sell spare and replacement parts for motor vehicles, machinery and equipment in retail settings and to advise retail customers and internal users on appropriateness of parts, supplies and materials requested

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2, 5, 6, R

- Completion of secondary school may be required.
- Completion of specialized training in high school or a one-year college program for parts clerks may be required.
- In Manitoba, Alberta, British Columbia, the Northwest Territories and the Yukon, completion of a three-to-four year automotive-partsperson apprenticeship program may be required.

- For parts clerks, experience in a related clerical occupation or as a warehouse worker may be required.
- Interprovincial trade certification (Red Seal) is also available to qualified automotive partspersons.

Workplaces/Employers

Forestry companies

Hospitals

Manufacturing companies

Mining companies

Repair shops

Retail establishments

Wholesale establishments

Occupational Options

Red Seal trade certification allows for interprovincial mobility.

Progression to supervisory positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Purchasing and Inventory Clerks (1474)

Shippers and Receivers (1471)

Parts clerks supervisors (in 1215 *Supervisors, Recording, Distributing and Scheduling Occupations*)

Remarks

Parts clerks may specialize in a particular line of parts such as automotive parts, heating, ventilating and air-conditioning parts or refrigeration parts.

1473 Production Clerks

Production Clerks co-ordinate and expedite the flow of work and materials within establishments, prepare work and production schedules and monitor the progress of production and construction projects.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4
INTERESTS								
MIs								
DATA PEOPLE THINGS (DPT)								
164								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	0	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
3								

Examples of Job Titles

- Expediter
- Material Estimator
- Production Clerk
- Production Co-ordinator
- Production Scheduler
- Scheduling Clerk
- Traffic Control Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to estimate types and quantities of materials and labour required for production, construction and other projects
- **Verbal and numerical ability** to consult with production supervisors to schedule production runs and prepare reports
- **Clerical perception** to compile detailed worksheets and specifications from customers' orders
- **Methodical interest in co-ordinating** and monitoring the movements of parts, supplies and materials within establishments; and in ensuring that supplies, materials and products are shipped and received on schedule
- **Innovative interest in operating** computerized systems to prepare and maintain reports on the progress of work, materials used, rates of production and other production information; and in co-ordinating activities between warehouses and production floors or construction sites
- **Social interest in speaking** with other production clerks, warehouse, production and construction supervisors, and purchasing and inventory clerks at regular meetings

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3

- Completion of secondary school is usually required.
- Previous clerical experience or experience as a production worker may be required.

Workplaces/Employers

Construction companies

Industrial establishments

Manufacturing companies

Printing firms

Publishing companies

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Purchasing and Inventory Clerks (1474)

Shippers and Receivers (1471)

Storekeepers and Parts Clerks (1472)

1474.1 Purchasing Clerks

Purchasing Clerks process purchasing transactions, resolve supply problems and prepare and maintain files, reports and price lists.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

Mis

DATA PEOPLE THINGS (DPT)

368

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

- Procurement Clerk
- Purchasing Assistant
- Purchasing Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to process purchases and to charge and forward invoices to the appropriate accounts
- **Verbal ability** to obtain price quotations from catalogues and suppliers, and to prepare purchase orders
- **Numerical ability** to calculate costs of orders
- **Clerical perception** to review requisition orders for accuracy
- **Methodical interest** in compiling information to prepare and maintain purchasing files, reports and price lists
- **Innovative interest** in verifying that materials, equipment and stock are not available from current inventories
- **Social interest** in speaking with suppliers to resolve shortages, missed deliveries and other problems

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is usually required.
- Courses in purchasing management may be required for purchasing clerks.

Workplaces/Employers

Government agencies

Manufacturing companies

Retail establishments

Wholesale companies

Occupational Options

The duties of purchasing and inventory clerks may overlap in some establishments.

Progression to supervisory positions or more senior occupations, such as purchasing agent or retail buyer, is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Purchasing Agents and Officers (1225)

Retail and Wholesale Buyers (6233)

Storekeepers and Parts Clerks (1472)

Supervisors of purchasing and inventory clerks (in 1215 *Supervisors, Recording, Distributing and Scheduling Occupations*)

1474.2 Inventory Clerks

Inventory Clerks compile and maintain inventories of materials, equipment and stock, and monitor inventory levels.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

Mio

DATA PEOPLE THINGS (DPT)

387

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4

Examples of Job Titles

Inventory Clerk
Inventory Control Clerk

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to determine types and values of materials, equipment and stock on hand
- **Verbal ability** to prepare requisition orders for materials, equipment and stock
- **Numerical ability and clerical perception** to count stock, material, merchandise and equipment, and to post totals to inventory records
- **Methodical interest in compiling** inventory reports by recording the quantities, types and values of materials, equipment and stock on hand using manual or computerized inventory systems; and in monitoring inventory levels as materials, equipment and stock are issued, transferred within establishments and sold to the public
- **Innovative interest** in reconciling calculated inventories with physical counts
- **Objective interest in handling** materials to maintain stock rotation and dispose of, and account for, outdated stock; may route merchandise from one area to another

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4

- Completion of secondary school is usually required.
- Ability to operate a computerized inventory system may be required for inventory clerks.

Workplaces/Employers

Government agencies

Manufacturing companies

Retail establishments

Wholesale companies

Occupational Options

The duties of purchasing and inventory clerks may overlap in some establishments.

Progression to supervisory positions or more senior occupations, such as purchasing agent or retail buyer, is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Purchasing Agents and Officers (1225)

Retail and Wholesale Buyers (6233)

Storekeepers and Parts Clerks (1472)

Supervisors of purchasing and inventory clerks (in 1215 *Supervisors, Recording, Distributing and Scheduling Occupations*)

1475.1 Dispatchers

Dispatchers operate radios and other telecommunication equipment to dispatch emergency vehicles and to co-ordinate the activities of drivers and other personnel.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2, 3, R

Examples of Job Titles

- 911 Dispatcher
- Alarm System Dispatcher
- Ambulance Dispatcher
- Computer-Aided Dispatch Clerk
- Dispatcher
- Emergency Vehicle Dispatcher
- Mobile Equipment Dispatcher
- Taxi Dispatcher
- Tow-Truck Dispatcher
- Utilities Maintenance Crew Dispatcher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** and **verbal ability** to receive requests for emergency assistance or service, and to contact ambulances, police and fire departments, tow trucks and utility crews
- **Numerical ability** to record mileage, fuel use, repairs and other expenses
- **Clerical perception** to ensure that time sheets and payroll summaries are completed
- **Methodical interest in compiling** information to maintain operator work records; and in monitoring personnel workloads and locations
- **Directive interest in operating** computer-aided communications and dispatching equipment to process and transmit information and instructions to co-ordinate the activities of vehicle operators, crews and equipment; and in dispatching personnel according to written schedules, work orders and as required by emergency situations
- **Social interest in speaking** with vehicle operators to advise on traffic problems such as construction, accidents, congestion and weather conditions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2, 3, R

- Completion of secondary school is usually required for police and emergency dispatchers and may be required for other dispatchers.
- Police and emergency dispatchers are usually required to complete formal on-the-job training.
- Police and emergency dispatchers usually require radio operator's certification.

Workplaces/Employers

Commercial and industrial establishments

Emergency service agencies

Police, fire and health departments

Taxi, delivery and courier services

Utility companies

Similar Occupations Classified Elsewhere

*Air Traffic Control Occupations (2272)**Railway and Marine Traffic Controllers (2275)**Supervisors of dispatchers (in 1215 Supervisors, Recording, Distributing and Scheduling Occupations)**Public transit dispatchers (in 7222 Supervisors, Motor Transport and Other Ground Transit Operators)*

1475.2 Radio Operators

Radio Operators receive, transmit and record signals and messages using radios and other telecommunications equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

OMS

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2, R

Examples of Job Titles

- Radio Officer
- Radio Operator
- Radio Operator - Military

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to receive and transmit signals and messages using radios and other telecommunications equipment
- **Numerical ability** to recognize and determine optimum transmitter frequencies by referring to frequency guides and to understand and read meters, dials and gauges
- **Clerical perception** to record signals and messages and to prepare reports and correspondence
- **Objective interest in operating** radio equipment and fixed, air transportable, mobile and naval communications equipment in the Canadian Forces; and in assisting in equipment maintenance
- **Methodical interest in compiling** information to keep logs of messages and in observing and recording weather conditions for use in forecasting
- **Social interest in speaking** to communicate with ships, aircraft, mining crews, offshore oil rigs, logging camps and other remote operations

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 3 Other sound discrimination

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 2, R

- Completion of secondary school may be required.
 - Radio operators usually require radio operator's certificates.
-

Workplaces/Employers

Canadian Forces

Forestry companies

Industrial establishments

Mining companies

Transportation companies

Similar Occupations Classified Elsewhere

Air Traffic Control Occupations (2272)

Railway and Marine Traffic Controllers (2275)

Supervisors of dispatchers (in 1215 Supervisors, Recording, Distributing and Scheduling Occupations)

Public transit dispatchers (in 7222 Supervisors, Motor Transport and Other Ground Transit Operators)

1476 Transportation Route and Crew Schedulers

Transportation Route and Crew Schedulers prepare operational and crew schedules for transportation equipment and operating personnel.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	4	4	4

INTERESTS

Mio

DATA PEOPLE THINGS (DPT)

164

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3+

Examples of Job Titles

- Bus Scheduler
- Crew Scheduler, Transportation
- Flight Crew Scheduler
- Schedule Analyst
- Schedule Writer, Transportation
- Train Scheduler
- Transit Scheduler
- Transportation Route Scheduler
- Truck Scheduler

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to review schedule requisitions, passenger counts, running times, distances, personnel availability and other pertinent information to establish schedules
- **Verbal ability and clerical perception** to read schedules and compile equipment and personnel records including hours of service, distances, maintenance, repairs and other data in order to produce operating reports
- **Methodical interest in co-ordinating** information to incorporate into route plan such factors as peak-travel periods, holidays, special events and construction that affect time and cost efficiency; and in maintaining equipment and personnel records
- **Innovative interest in speaking** to assign personnel to equipment and routes and schedule work shifts; and in designing new, or modifying existing, schedules; may prepare user guides and other information for the public regarding services
- **Objective interest in operating** computer software to adjust schedules and design new or modify existing schedules

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3+

- Completion of secondary school is required.
- Several years of experience in the appropriate transportation sector are usually required.

Workplaces/Employers

Airlines

Municipal transit commissions

Railways

Transportation companies in both the private and public sectors

Truck, delivery and courier services

Occupational Options

Mobility among occupations in this group is limited due to the requirement for experience in a specific transportation sector.

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Flight schedulers (in 0713
Transportation Managers)

Production schedule clerks in manufacturing establishments (in 1473 *Production Clerks*)

Scheduling technicians in manufacturing (in 2233 *Industrial Engineering and Manufacturing Technologists and Technicians*)

Supervisors of transportation route and crew schedulers (in 1215 *Supervisors, Recording, Distributing and Scheduling Occupations*)

**Natural and Applied Sciences
and Related Occupations**

Natural and Applied Sciences and Related Occupations

MAJOR GROUP 21

PROFESSIONAL OCCUPATIONS IN NATURAL AND APPLIED SCIENCES

211 Physical Science Professionals

- 2111 Physicists and Astronomers
 - 2111.1 Physicists
 - 2111.2 Astronomers
- 2112 Chemists
- 2113 Geologists, Geochemists and Geophysicists
- 2114 Meteorologists
- 2115 Other Professional Occupations in Physical Sciences
 - 2115.1 Metallurgists
 - 2115.2 Soil Scientists
 - 2115.3 Materials Scientists

212 Life Science Professionals

- 2121 Biologists and Related Scientists
 - 2121.1 Biologists
 - 2121.2 Microbiologists and Cell and Molecular Biologists
- 2122 Forestry Professionals
- 2123 Agricultural Representatives, Consultants and Specialists

213 Civil, Mechanical, Electrical and Chemical Engineers

- 2131 Civil Engineers
- 2132 Mechanical Engineers
- 2133 Electrical and Electronics Engineers
- 2134 Chemical Engineers

214 Other Engineers

- 2141 Industrial and Manufacturing Engineers
- 2142 Metallurgical and Materials Engineers
- 2143 Mining Engineers
- 2144 Geological Engineers
- 2145 Petroleum Engineers
- 2146 Aerospace Engineers
- 2147 Computer Engineers
 - 2147.1 Computer Hardware Engineers
 - 2147.2 Software Engineers
- 2148 Other Professional Engineers, n.e.c.
 - 2148.1 Agricultural Engineers
 - 2148.2 Biomedical Engineers
 - 2148.3 Engineering Physicists and Engineering Scientists
 - 2148.4 Food Processing Engineers
 - 2148.5 Marine and Naval Engineers
 - 2148.6 Textile Engineers

215 Architects, Urban Planners and Land Surveyors

- 2151 Architects
- 2152 Landscape Architects
- 2153 Urban and Land Use Planners
- 2154 Land Surveyors

216 Mathematicians, Systems Analysts and Computer Programmers

- 2161 Mathematicians, Statisticians and Actuaries
 - 2161.1 Mathematicians
 - 2161.2 Statisticians
 - 2161.3 Actuaries
- 2162 Computer Systems Analysts
- 2163 Computer Programmers

MAJOR GROUP 22**TECHNICAL OCCUPATIONS RELATED TO NATURAL AND APPLIED SCIENCES****221 Technical Occupations in Physical Sciences**

- 2211 Applied Chemical Technologists and Technicians
 - 2211.1 Applied Chemical Technologists
 - 2211.2 Applied Chemical Technicians
- 2212 Geological and Mineral Technologists and Technicians
 - 2212.1 Geological and Mineral Technologists
 - 2212.2 Geological and Mineral Technicians
- 2213 Meteorological Technicians

222 Technical Occupations in Life Sciences

- 2221 Biological Technologists and Technicians
 - 2221.1 Biological Technologists
 - 2221.2 Biological Technicians
- 2222 Agricultural and Fish Products Inspectors
 - 2222.1 Fish and Fish Products Inspectors
 - 2222.2 Fruit and Vegetable Inspectors
 - 2222.3 Grain Inspectors
 - 2222.4 Meat Inspectors
 - 2222.5 Plant Protection Inspectors
- 2223 Forestry Technologists and Technicians
- 2224 Conservation and Fishery Officers
- 2225 Landscape and Horticultural Technicians and Specialists
 - 2225.1 Arborists and Tree Service Technicians
 - 2225.2 Golf Course Superintendents
 - 2225.3 Horticulturists
 - 2225.4 Landscape Designers and Landscape Architectural Technicians and Technologists
 - 2225.5 Landscape Gardeners
 - 2225.6 Landscapers
 - 2225.7 Lawn Care Specialists

223 Technical Occupations in Civil, Mechanical and Industrial Engineering

- 2231 Civil Engineering Technologists and Technicians
 - 2231.1 Civil Engineering Technologists
 - 2231.2 Civil Engineering Technicians
- 2232 Mechanical Engineering Technologists and Technicians
 - 2232.1 Mechanical Engineering Technologists
 - 2232.2 Mechanical Engineering Technicians
- 2233 Industrial Engineering and Manufacturing Technologists and Technicians
 - 2233.1 Industrial Engineering and Manufacturing Technologists
 - 2233.2 Industrial Engineering and Manufacturing Technicians
- 2234 Construction Estimators

224 Technical Occupations in Electronics and Electrical Engineering

- 2241 Electrical and Electronics Engineering Technologists and Technicians
 - 2241.1 Electrical and Electronics Engineering Technologists
 - 2241.2 Electrical and Electronics Engineering Technicians
- 2242 Electronic Service Technicians (Household and Business Equipment)
- 2243 Industrial Instrument Technicians and Mechanics
- 2244 Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors
 - 2244.1 Aircraft Instrument Mechanics and Technicians
 - 2244.2 Aircraft Electrical Mechanics and Technicians
 - 2244.3 Avionics Mechanics and Technicians
 - 2244.4 Avionics Inspectors

225 Technical Occupations in Architecture, Drafting, Surveying and Mapping

- 2251 Architectural Technologists and Technicians
- 2252 Industrial Designers
- 2253 Drafting Technologists and Technicians
 - 2253.1 Drafting Technologists
 - 2253.2 Drafting Technicians
- 2254 Survey Technologists and Technicians
 - 2254.1 Survey Technologists
 - 2254.2 Survey Technicians
- 2255 Mapping and Related Technologists and Technicians
 - 2255.1 Cartographic Technologists and Technicians
 - 2255.2 Photogrammetric Technologists and Technicians
 - 2255.3 Aerial Survey Technologists and Technicians
 - 2255.4 Remote Sensing Technologists and Technicians
 - 2255.5 Geographic Information System (GIS) Technologists and Technicians

226 Other Technical Inspectors and Regulatory Officers

- 2261 Nondestructive Testers and Inspectors
- 2262 Engineering Inspectors and Regulatory Officers
 - 2262.1 Motor Vehicles Defects Investigators
 - 2262.2 Railway Accident Investigation Officers
 - 2262.3 Airworthiness Inspectors
 - 2262.4 Inspectors, Weights and Measures

- 2263 Inspectors in Public and Environmental Health and Occupational Health and Safety
- 2264 Construction Inspectors

227 Transportation Officers and Controllers

- 2271 Air Pilots, Flight Engineers and Flying Instructors
 - 2271.1 Pilots
 - 2271.2 Flight Engineers (Second Officers)
 - 2271.3 Flying Instructors
- 2272 Air Traffic Control Occupations
 - 2272.1 Air Traffic Controllers
 - 2272.2 Flight Dispatchers
 - 2272.3 Flight Service Specialists
- 2273 Deck Officers, Water Transport
- 2274 Engineer Officers, Water Transport
- 2275 Railway and Marine Traffic Controllers
 - 2275.1 Railway Traffic Controllers
 - 2275.2 Marine Traffic Controllers

2111.1 Physicists

Physicists conduct theoretical and applied research to extend knowledge of natural phenomena and to develop new processes and devices in fields such as electronics, communications, power generation and distribution, aerodynamics, optics and lasers, remote sensing, and medicine and health.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	1	1	3	3	3	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2*	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

- Acoustics Physicist
- Aerodynamicist
- Biophysicist
- Experimental Physicist
- Health Physicist
- Medical Physicist
- Metrologist
- Nuclear Physicist
- Optics Physicist
- Plasma Physicist
- Research Scientist, Aerospace
- Research Scientist, Communications
- Research Scientist, Electronics
- Research Scientist, Physics
- Research Scientist, Remote Sensing
- Solid State Physicist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design and conduct research in experimental and theoretical physics
- **Verbal ability** to understand scientific terms and prepare research reports
- **Numerical ability** to apply advanced mathematical techniques and carry out precise measurements to formulate mathematical relationships of physical phenomena

- **Spatial and form perception** to visualize geometric forms and abstract relationships and to observe slight differences in shapes and arrangements when assisting in the design and development of experimental, industrial and medical equipment, instruments and procedures
- **Innovative interest** in synthesizing information to carry out analyses of research data in order to formulate and substantiate new theories, concepts and laws; and in developing new processes and devices in fields such as electronics, communications, power generation and distribution, aerodynamics, optics and lasers, remote sensing, and medicine and health

- **Objective interest in precision working** with scientific instruments to conduct experiments; and designing and developing instruments and procedures
- **Directive interest in supervising** technologists and technicians; and in participating as members of research and development teams

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2* Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
-

Employment Requirements

Education/Training
8

- Physicists require a master's or doctoral degree in a field of physics, engineering physics or a related discipline.

Workplaces/Employers

Electrical and aerospace manufacturing companies

Electronic manufacturing companies

Hospitals

Power utilities

Processing, manufacturing, research and consulting firms

Telecommunications companies

University and government research laboratories

Occupational Options

Mobility among specializations within physics and within astronomy is possible with experience.

Mobility to the fields of meteorology, geophysics and other fields of science is possible.

Physicists may work closely with, and perform some of the duties of, engineers.

Similar Occupations Classified Elsewhere

Geophysicists and physical oceanographers (in 2113 *Geologists, Geochemists and Geophysicists*)

Atmospheric physicists (in 2114 *Meteorologists*)

Remarks

Physicists may specialize in fields such as aerology and space, acoustics, atomic and molecular physics, biophysics, condensed matter or solid state physics, electromagnetics, fluids and aerodynamics, health physics, medical physics, metrology, optics and laser physics, nuclear physics, particle physics and plasma physics.

*Physical Activities

- For some occupations in this group, Hearing 3 (Other sound discrimination) may also apply.

2111.2 Astronomers

Astronomers conduct observational and theoretical research to extend knowledge of the universe.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	1	1	3	3	3	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Astronomer
Astrophysicist
Cosmologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to observe, analyze and interpret data on positions, motions, composition, structures and characteristics of celestial bodies in order to extend knowledge of the origin, evolution and destiny of the universe
- **Verbal ability** to understand scientific terms and prepare research papers and reports
- **Numerical ability** to develop numerical models to extend knowledge of celestial bodies and radiation received from parts of the universe
- **Spatial perception** to visualize geometric forms, comprehend abstract relationships of geometry and logic, and identify mathematical irregularities
- **Form perception** to make visual comparisons and observe slight differences in shapes and arrangements when observing celestial bodies from ground observation stations and instruments
- **Innovative interest** in synthesizing information to design observational surveys and to conduct detailed analyses, observational studies and theoretical research
- **Objective interest** in precision working to develop, or participate in the development of, instruments and software for observation and analyses
- **Directive interest** in supervising technologists and technicians; and in preparing papers and reports

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- Astronomers require a master's or doctoral degree in astronomy or in a related discipline.

Workplaces/Employers

Governments

Universities

Occupational Options

Mobility among specializations within physics and within astronomy is possible with experience.

Mobility to the fields of meteorology, geophysics and other fields of science is possible.

Similar Occupations Classified Elsewhere

Geophysicists and physical oceanographers (in 2113 *Geologists, Geochemists and Geophysicists*)

Atmospheric physicists (in 2114 *Meteorologists*)

Remarks

Astronomers may specialize in fields such as observational or optical astronomy, radio astronomy and astrophysics.

2112 Chemists

Chemists conduct research and analysis in support of industrial operations, product and process development, quality control, environmental control, medical diagnosis and treatment, biotechnology and other applications. They also conduct theoretical, experimental and applied research into basic chemical and biochemical processes to create and synthesize new products and processes.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	1	1	1	1	3	3	3
INTERESTS								
IOD								
DATA PEOPLE THINGS (DPT)								
031								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	1	1	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1, H1								
EDUCATION/TRAINING								
7, 8, R								

Examples of Job Titles

- Agricultural Chemist
- Analytical Chemist
- Biochemist
- Chemist
- Clinical Chemist
- Coatings Chemist
- Electrochemist
- Environmental Chemist
- Food Chemist
- Inorganic Chemist
- Nuclear Magnetic Resonance (NMR) Spectroscopist
- Oceanographic Chemist
- Organic Chemist
- Organic Mass Spectrometrists
- Organometallic Chemist
- Pharmacological Chemist
- Physical Chemist
- Polymer Chemist
- Quality Control Chemist
- Research Chemist
- Soil Chemist
- Textile Chemist
- Theoretical Chemist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct fundamental and applied research into the synthesis and properties of chemical compounds and the mechanisms of chemical reactions
- **Verbal ability** to participate in interdisciplinary research and development projects working with scientists, engineers and other professionals, and to prepare laboratory and research reports
- **Numerical ability** to conduct programs of sample and data collection and analysis in order to identify and quantify environmental toxicants
- **Spatial perception** to visualize chemical reactions and changes in properties
- **Form perception** to observe details in objects and make visual comparisons during analytical studies of physical and chemical properties of organic and inorganic substances

- **Innovative interest** in synthesizing information to conduct research to develop new chemical formulations and processes and to devise new technical applications of industrial chemicals and compounds; to develop and conduct programs of analysis to ensure quality control of raw materials, chemical intermediates and final products; and to investigate chemical aspects of drug action, the diagnosis and treatment of disease, organ function and the assessment of health
- **Objective interest in precision working** with instruments to analyze, synthesize, purify, modify and characterize chemical and biochemical compounds
- **Directive interest** in acting as technical consultants in a particular field of expertise; may supervise other chemists and chemical technicians and technologists

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H1 Dangerous chemical substances

Employment Requirements

Education/Training

7, 8, R

- A bachelor's degree in chemistry, biochemistry or a related discipline is required.
- A master's or doctoral degree is usually required for employment as a research chemist.
- Licensing through the Ordre des chimistes du Québec and membership in the professional corporation for chemists is mandatory for chemists who work in Quebec.

Workplaces/Employers

Chemical industries
Development laboratories
Educational establishments
Government organizations
Health establishments
Manufacturing companies

Metal industries
Mineral industries
Petrochemical industries
Pharmaceutical industries
Pulp and paper industries
Quality control laboratories
Research laboratories
Utilities

Occupational Options

Mobility among occupations in this group is possible with experience.

Mobility to occupations concerned with plant management, technical sales, and the development and management of regulatory programs and teaching professions is possible.

Similar Occupations Classified Elsewhere

Chemical Engineers (2134)

Geochemists (in 2113 Geologists, Geochemists and Geophysicists)

Metallurgists and material scientists (in 2115 Other Professional Occupations in Physical Sciences)

Molecular Biologists (in 2121 Biologists and Related Scientists)

2113

Geologists, Geochemists and Geophysicists

Geologists, Geochemists and Geophysicists conduct programs of exploration and research to extend knowledge of the structure, composition and processes of the earth; and identify hydrocarbon, mineral and ground-water resources; to implement programs of hydrocarbon and mineral extraction; and to assess the effects of development and waste-disposal projects on the environment.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	1	2	2	3	3	4	3
INTERESTS								
IOD								
DATA PEOPLE THINGS (DPT)								
121								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
3	1	2	3	1	2			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L3								
EDUCATION/TRAINING								
7, 8, R								

Examples of Job Titles

- Environmental Geologist
- Exploration Geologist
- Geochemist
- Geologist
- Geophysicist
- Glaciologist
- Ground-Water Geologist
- Hydrologist
- Mine Geologist
- Mineralogist
- Palaeontologist
- Oceanographer
- Petroleum Geologist
- Petrologist
- Sedimentologist
- Seismologist
- Stratigrapher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct theoretical and applied research to extend knowledge of surface and subsurface features of the earth, its history and the physical, chemical and biological systems that control its evolution; and to conduct geological and geophysical studies for regional development, site selection and the development of public works projects

- **Verbal ability** to prepare reports and to plan, direct and participate in analyses of survey data, well logs and other test results, maps, notes and cross-sections
- **Numerical ability** to develop applied software for analyses and interpretation of data
- **Spatial perception** to assess the movement of ground and surface waters, and to identify and anticipate natural risks such as slope erosion, landslides, soil instability, subsidence, earthquakes and volcanic eruptions
- **Form perception** to assess the size, orientation and composition of ore bodies and hydrocarbon deposits

- **Innovative interest in co-ordinating** information to assess deposits and geological age; to determine characteristics and suitability of materials for such use as concrete aggregates and road fill; and to plan and direct field studies, drilling and testing programs, and seismic, electro-magnetic, magnetic, gravimetric, radiometric, radar and other remote sensing programs
- **Objective interest in precision working** with instruments to identify deposits of construction materials; and in participating in remote sensing programs and analyses of core samples, drill cuttings and rock samples to identify chemical, mineral, hydrocarbon and biological composition

- **Directive interest in consulting** to recommend the acquisition of lands, exploration and mapping programs, and mine development; and in advising in areas such as waste management, route and site selection and the restoration of contaminated sites; may supervise and co-ordinate well drilling, completion and work-overs, and mining activities

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training
7, 8, R

- A university degree in geology, geochemistry, geophysics or a related discipline is required.

- A master's or doctoral degree in geophysics, physics, mathematics or engineering may be required for employment as a geophysicist.

- Registration as a professional geologist or geophysicist by a provincial or territorial association of professional engineers or geologists and geophysicists is often required for employment and to practise in Newfoundland, Alberta, British Columbia and the Northwest Territories.

- Geologists and geophysicists are eligible for registration following graduation from an accredited educational program and after several years of supervised work experience and, in some provinces, after passing a professional practice examination.

- In some provinces or territories those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

Workplaces/Employers

Consulting engineering, geology and geophysics firms

Educational institutions

Governments

Mining and petroleum companies

Self-employment

Occupational Options

Mobility among specializations in this group is possible with experience.

Advancement to management positions in mining, petroleum and other industries is possible.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Chemists (2112)

Geological Engineers (2144)

Physicists and Astronomers (2111)

Remarks

Geologists may specialize in the following fields: coal geology, geochronology, geomorphology or surficial geology, hydrogeology, geotechnics, mineralogy, mineral deposits or mining, palaeontology, petroleum geology, petrology, sedimentology, stratigraphy or biostratigraphy, structural geology or tectonics, volcanology, environmental geology, marine geology or in other fields.

Geochemists may specialize in analytical geochemistry, mineral or petroleum geochemistry, hydrochemistry or in other fields.

Geophysicists may specialize in petroleum, earth physics, oceanography or in other fields.

2114 Meteorologists

Meteorologists analyze and forecast weather, provide consultation on atmospheric phenomena and conduct research on weather, climate and atmosphere.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	1	2	3	4	4	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

121

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

7, 8, R

Examples of Job Titles

- Air Quality Meteorologist
- Atmospheric Physicist
- Climatologist
- Hydrometeorologist
- Meteorologist
- Weather Forecaster

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** and **spatial and form perception** to analyze and interpret data obtained from meteorological stations, radar and satellite imagery, and computer model outputs and to participate in studies of the effects of weather on the environment
- **Verbal ability** to produce weather forecasts and make scientific presentations, publish reports, articles and popular texts for specialists, users and the general public
- **Numerical ability** to develop and test mathematical computer models of weather and climate for experimental and operational use, and to develop and use mathematical models of the dispersion of pollutants and their physical and chemical transformation
- **Innovative interest** in **co-ordinating** research on atmospheric phenomena, weather and climate; and in conducting research into the atmospheric dispersion and transport of pollutants; may engage in the design and development of new equipment and procedures for meteorological data collection, remote sensing and related applications
- **Objective interest** in **precision working** to use equipment and instruments to analyze the impact of industrial projects on the climate and quality of the air
- **Directive interest** in **consulting** to provide advice to outside agencies, professionals and researchers regarding the use and interpretation of climatological information; and in providing consultation on the dispersion, transport and deposition of pollutants for environmental regulation and protection, and in acting as consultants to the general public, to aviation, marine, farming and forestry industries, and to others engaged in weather-sensitive activities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

7, 8, R

- Bachelor or Master of Science degree in meteorology, physics, mathematics or a related field is required.
- A doctoral degree is usually required for employment as a research scientist in meteorology.
- Formal training of nine months is provided by the Atmospheric Environment Service for weather forecasters.
- Membership in the Canadian Meteorological and Oceanographic Society or, in Quebec, in l'Association professionnelle des météorologistes du Québec is available, but voluntary, for qualified meteorologists

Workplaces/Employers

Atmospheric Environment Service of Environment Canada

Canadian Forces

Private consulting companies

Provincial governments

Resource and utility companies

Self-employment

Similar Occupations Classified Elsewhere

*Meteorological Technicians (2213)*Announcers who broadcast weather forecasts (in 5231 *Announcers and Other Broadcasters*)

2115.1 Metallurgists

Metallurgists conduct theoretical and applied research in metallurgy.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	2	4	3	3	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, 8

Examples of Job Titles

Metallurgist
Physical Metallurgist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct studies into the properties and production of metals and alloys
- **Verbal ability** to consult with engineers and company officials to develop methods of manufacturing alloys, to minimize air pollution, to develop and implement inspection and testing procedures, and to gather information through searches of publications, attendance at technical society meetings and visits to other departments or plants

- **Numerical ability** to measure and record data
- **Spatial and form perception** to conduct microscopic, X-ray, X-ray diffraction and spectrographic studies of metals and alloys, and to determine types of metal to be used in relation to design and fabrication taking into consideration magnetic and electronic properties such as strength, weight, temperature resistance and rigidity
- **Innovative interest** in synthesizing information to evaluate variables that influence physical and thermoelectric properties of unusual metals, and to assess the properties of metals during processes such as rolling, extruding, casting, forming, welding, corrosion protection,

alloying, heat and mechanical treatments; and in developing hot-working and cooling processes to obtain desired characteristics such as hardness, grain size, heat resistance and strength

- **Objective interest in precision working** with instruments to test alloys in tension, compression, impact bending and fatigue devices to study their engineering properties and ensure that they comply with prescribed standards
- **Directive interest in supervising** and co-ordinating the work of technologists and technicians; and in advising on the shortcomings of metals in use and anticipated use, and in training mill testers and inspectors

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, 8

- A bachelor's degree in metallurgy, physics, chemistry or a related physical science discipline is required.
- A master's or doctoral degree is usually required for employment as a research scientist.

Workplaces/Employers

Educational institutions

Governments

Industrial establishments

Occupational Options

Mobility among specializations in this group may be possible with experience.

Mobility management or regulatory program management is possible to other fields of physical science with experience.

Similar Occupations Classified Elsewhere

*Chemists (2112)**Metallurgical and Materials Engineers (2142)*

2115.2 Soil Scientists

Soil Scientists conduct theoretical and applied research in soil science.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	2	4	3	3	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, 8

Examples of Job Titles

Soil Scientist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct research into the composition, distribution and evolution of soils
- **Verbal ability** to understand the terms associated with agricultural sciences, and to express ideas clearly; may advise rural residents on land use and soil management
- **Numerical ability** to carry out data analyses
- **Spatial and form perception** to study composition of soil in order to determine microbe content of organic matter, fertility and the presence of nitrogen, oxygen and other elements, and to study the physical characteristics and chemical properties of soils to determine capabilities and limitations of potential growth, water absorption capacity, degree of acidity and texture
- **Innovative interest in synthesizing** information to classify soil management practices and study their effects on long-range productivity; and in investigating problems of strip cropping, contour ploughing, terracing and other soil conservation practices to reduce soil and mineral erosion and to retain sufficient water supplies for proper irrigation; may examine problems of layering and drainage of soils used in foundations for roads, dams, buildings and other structures
- **Objective interest in precision working** to rebuild deteriorated, over-acidic and barren soils by stabilizing run-off and applying green manure crops, lime, nitrates, compost residue and other nutrients and fertilizers
- **Directive interest in supervising** and co-ordinating the work of technologists and technicians; may direct soil surveys to plot boundaries of deposits on maps

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training
7, 8

- A bachelor's degree in metallurgy, physics, chemistry or a related physical science discipline is required.
- A master's or doctoral degree is usually required for employment as a research scientist.

Workplaces/Employers

Educational institutions
Governments
Industrial establishments

Occupational Options

Mobility among specializations in this group may be possible with experience.

Mobility to other fields of physical science or to management or regulatory program management is possible with experience.

Similar Occupations Classified Elsewhere

Chemists (2112)

Metallurgical and Materials Engineers (2142)

2115.3 Materials Scientists

Materials Scientists conduct theoretical and applied research into the properties, composition and production of materials.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	2	4	3	3	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, 8

Examples of Job Titles

- Ballistics Examiner
- Materials Scientist
- Research Scientist, Ceramics
- Research Scientist, Composite Materials

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** conduct research into the properties, composition and production of materials such as ceramics and composite materials
- **Verbal ability** to understand and use scientific and technical terms and to prepare reports and studies
- **Numerical ability** to measure and record data from experiments on ceramics, composite materials and other materials
- **Spatial perception** to observe and understand the arrangement and relationship of physical properties of matter
- **Form perception** to observe and compare findings in experiments
- **Innovative interest** in synthesizing information to conduct and interpret research findings
- **Objective interest** in precision working with equipment to conduct research experiments
- **Directive interest** in supervising research studies

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, 8

- A bachelor's degree in metallurgy, physics, chemistry or a related physical science discipline is required.
- A master's or doctoral degree is usually required for employment as a research scientist.

Workplaces/Employers

Educational institutions

Governments

Industrial establishments

Occupational Options

Mobility among specializations in this group may be possible with experience.

Mobility to other fields of physical science or to management or regulatory program management is possible with experience.

Similar Occupations Classified Elsewhere

Chemists (2112)

Metallurgical and Materials Engineers (2142)

2121.1 Biologists

Biologists conduct basic and applied research to extend knowledge of living organisms, to manage natural resources and to develop new practices and products related to medicine and agriculture.

Profile Summary								
APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	1	2	2	3	4	3	3
INTERESTS								
IOD								
DATA PEOPLE THINGS (DPT)								
031								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	1	1	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L3, H2								
EDUCATION/TRAINING								
7, 8								

Examples of Job Titles
Anatomist
Biologist
Botanist
Ecologist
Embryologist
Marine Biologist
Physiologist
Zoologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and conduct studies of the environment and the population, distribution, structures, characteristics and behaviour of plants and animals
 - **Verbal ability** to prepare reports and plans for management of renewable resources
- **Numerical ability** to understand and apply advanced mathematics for research purposes
 - **Spatial and form perception** to study, identify and classify plant and animal specimens
 - **Innovative interest in synthesizing** information to conduct ecological and environmental impact studies and to prepare reports
- **Objective interest in precision working** with instruments and equipment to conduct experiments in plant and animal growth, heredity and breeding
 - **Directive interest in supervising** research projects; may supervise biological technologists and technicians and other scientists

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Hazards

H2 Biological agents

Employment Requirements

Education/Training

7, 8

- A bachelor's degree in biology or in a related discipline is required for biologists.
- A master's or doctoral degree in biology or a related discipline is required for employment as a research scientist in biology.
- Post-doctoral research experience is usually required before employment in academic departments or research institutions.

Workplaces/Employers

Chemical companies

Environmental consulting companies

Health and educational institutions

Laboratory and field settings in governments

Pharmaceutical and biotechnical companies

Resource and utility companies

Similar Occupations Classified Elsewhere

Biochemists (in 2112 *Chemists*)Specialists in laboratory medicine (in 3111 *Specialist Physicians*)

Remarks

Biologists may specialize at the macroscopic level, in fields such as botany, zoology, ecology and marine biology; or, at the cellular and molecular level, in fields such as genetics, immunology, pharmacology, toxicology, physiology, pathology, bacteriology and virology.

2121.2 Microbiologists and Cell and Molecular Biologists

Microbiologists conduct basic and applied research to extend knowledge of living micro-organisms and to develop new practices and products related to medicine and agriculture.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	2	3	4	3	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

7, 8

Examples of Job Titles

Bacteriologist
Cell Biologist
Geneticist
Histologist
Immunologist
Microbiologist
Molecular Biologist
Parasitologist
Pharmacologist
Protozoologist
Toxicologist
Virologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct research into the structures, functions, ecology, biotechnology and genetics of micro-organisms including bacteria, fungi, protozoans and algae
- **Verbal ability** to understand the meaning and use of biological terms and to communicate both orally and in writing
- **Numerical ability** to understand and apply advanced mathematics for research purposes
- **Spatial and form perception** to study the structure and function of human, animal and plant tissues and cells, and to study the identification of human, plant and animal pathogens and toxins
- **Innovative interest** in synthesizing information to study the effects and control of human, plant and animal pathogens and toxins
- **Objective interest in precision working** with instruments to conduct clinical and laboratory studies to test, evaluate and screen drugs and pharmaceuticals; and in conducting molecular and biochemical studies and experiments into genetic expression, gene manipulation and recombinant DNA technology
- **Directive interest in supervising** research projects; may supervise biological technologists, technicians and other scientists

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Employment Requirements

Education/Training

7, 8

- A bachelor's degree in biology or a related discipline is required for biologists.
- A master's or doctoral degree in biology or a related discipline is required for employment as a research scientist in biology.
- Post-doctoral research experience is usually required before employment in academic departments or research institutions.

Workplaces/Employers

Chemical companies

Environmental consulting companies

Health and educational institutions

Laboratory and field settings in governments

Pharmaceutical and biotechnical companies

Resource and utility companies

Similar Occupations Classified Elsewhere

Biochemists (in 2112 *Chemists*)

Specialists in laboratory medicine (in 3111 *Specialist Physicians*)

Remarks

Biologists may specialize at the macroscopic level, in fields such as botany, zoology, ecology and marine biology; or, at the cellular and molecular level, in fields such as genetics, immunology, pharmacology, toxicology, physiology, pathology, bacteriology and virology.

2122 Forestry Professionals

Forestry Professionals conduct research, develop plans and administer and direct programs related to the management and harvesting of forest resources.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	3	3	3	4	3	3

INTERESTS

ISD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

7+, R

Examples of Job Titles

- Appraisal Forester
- Consulting Forester
- District Forester
- Forest Engineer
- Forester
- Forestry Superintendent
- Professional Forester
- Regional Inventory Officer - Forestry
- Registered Professional Forester (RPF)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and direct forest surveys and related studies, and to establish short- and long-term plans for management of forest lands and resources
- **Verbal ability** to negotiate terms of contracts for forest harvesting, forest management and the leasing of forest lands, and to prepare reports and recommendations
- **Clerical perception** to monitor contracts and the results of forestry activities, and to ensure that they adhere to government regulations and company objectives
- **Innovative interest in precision working** to conduct advanced research into areas such as tree improvement, nursery seedling production, forest soils, forest ecology, forest mensuration and forest operations
- **Social interest in synthesizing** information to plan and conduct public relations, educational and extension programs related to forestry; and in providing advice and recommendations as consultants on forestry issues to private woodlot owners, companies and municipal, provincial and federal governments
- **Directive interest in supervising** programs to plan and direct woodlands harvesting, reforestation, silviculture, fire prevention and fire suppression programs, road building, wildlife management, environmental protection and insect and vegetation control programs; and in developing and overseeing programs for tree seedling production and woodlands nursery operations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

7+, R

- A bachelor's degree in forestry or forestry engineering is required.
- Certification as a forester or forest engineer by provincially chartered associations is required in provinces having such associations.
- A two-year practicum of supervised work experience and professional examinations are usually required before registration.

Workplaces/Employers

Consulting companies
 Educational institutions
 Federal government
 Forest industry
 Forestry-related industries
 Provincial governments
 Self-employment

Occupational Options

With experience, mobility to management positions in government and industry is possible.

Supervisory and senior occupations in this group require additional experience.

Similar Occupations Classified Elsewhere

Forest and woodlands operations managers [in 0811 *Primary Production Managers (Except Agriculture)*]

Forest economists (in 4162 *Economists and Economic Policy Researchers and Analysts*)

Managers of government forestry policy and program administration (in 0412 *Government Managers in Economic Analysis, Policy Development and Program Administration*)

Managers of research in forestry (in 0212 *Architecture and Science Managers*)

2123

Agricultural Representatives, Consultants and Specialists

Agricultural Representatives, Consultants and Specialists provide assistance and advice to farmers on farm management, cultivation, fertilization, harvesting, soil erosion and composition, disease prevention, nutrition, crop rotation and marketing.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	2	4	3	3	4	3	3
INTERESTS								
ISD								
DATA PEOPLE THINGS (DPT)								
228								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	0	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
7, 8, R								

Examples of Job Titles

- Agricultural Consultant
- Agricultural Extension Supervisor
- Agricultural Livestock Specialist
- Agricultural Representative
- Agricultural Soil and Crop Specialist
- Agriculturist
- Agrologist
- Agronomist
- Consulting Agrologist
- Crop Specialist
- Farm Consultant
- Farm Management Consultant
- Field Service Agent
- Growers’ Advisor
- Professional Agrologist (P.Ag.)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to provide counselling and advisory services to farmers on crop cultivation and fertilization, harvesting, animal and poultry care, disease prevention, farm management, farm financing, marketing and other agricultural subjects
- Verbal ability to understand technical terms in order to prepare research reports
- Numerical ability to carry out analyses of agricultural data
- Innovative interest in analyzing information to conduct research and evaluate agricultural data; and in maintaining records of services provided and the results achieved

- Social interest in liaising with researchers, educators and government and business managers on farming and agriculture
- Directive interest in consulting to provide counselling and advisory services, and to conduct advisory information sessions and lectures for farmers and other groups

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, 8, R

- A bachelor's or master's degree in agriculture or in a related science is required.
- Membership or eligibility for membership in a provincial institute of agrology is usually required.
- In Quebec, membership in the professional corporation for agrologists is mandatory.

Workplaces/Employers

Businesses, institutions and governments that assist the farming community

Self-employment

Similar Occupations Classified Elsewhere

Biologists and Related Scientists (2121)

Landscape and Horticulture Technicians and Specialists (2225)

Agricultural engineers (in 2148 *Other Professional Engineers, n.e.c.*)

Agrology technologists and technicians (in 2221 *Biological Technologists and Technicians*)

Managers of agricultural extension and consulting services (in 0212 *Architecture and Science Managers*)

Managers responsible for agricultural economic policy (in 0412 *Government Managers in Economic Analysis, Policy Development and Program Administration*)

Remarks

Agricultural representatives, consultants and specialists may specialize in specific aspects of agriculture such as animal science, field crops, horticulture, soil science, irrigation or drainage, farm management, marketing, agricultural economics, land use, environmental management, appraisal or extension and education.

2131 Civil Engineers

Civil Engineers plan, design, develop and manage projects for the construction and repair of structures such as buildings, roads, airports, railways, rapid transit facilities, bridges, dams, ports and coastal installations, and systems related to highway and transportation services, water distribution and sanitation. Civil Engineers may also specialize in foundation analysis, building and structural inspection, surveying and municipal planning.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
1	1	1	1	2	4	4	4	4	
INTERESTS									
IOD									
DATA PEOPLE THINGS (DPT)									
031									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
3	0	2	3	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1, L3									
EDUCATION/TRAINING									
7, R									

Examples of Job Titles
Bridge Engineer
Civil Engineer
Construction Engineer
Environmental Engineer
Highway Engineer
Hydraulic Engineer
Municipal Engineer
Project Engineer, Construction
Public Works Engineer
Sanitation Engineer
Structural Engineer
Surveying Engineer
Traffic Engineer
Transportation Engineer
Water Management Engineer

Descriptor Profile

Main Characteristics	
Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:	
<ul style="list-style-type: none">General learning ability to plan and design major civil projects such as buildings, roads, bridges, dams, water and waste management systems and structural steel fabrications, and to review and evaluate tenders for construction projectsVerbal ability to confer with clients and other members of engineering teams, and to prepare contract documents and various reports	<ul style="list-style-type: none">Numerical ability to analyze data and review calculations and cost estimatesSpatial and form perception to interpret and review surveys and civil design workInnovative interest in synthesizing information to conduct research in order to determine project requirements, to develop construction specifications and procedures, and to conduct feasibility studies, economic analyses, municipal and regional traffic studies, environmental impact studies and other investigations
	<ul style="list-style-type: none">Objective interest in precision working to conduct technical analyses of survey and field data for development of topographic, soil, hydrological and other information; and in conducting field services for civil worksDirective interest in supervising technicians, technologists and other engineers; and in overseeing land surveys and construction work, in approving survey and civil design work, in evaluating and recommending building and construction materials, in approving designs, calculations and cost estimates, in ensuring that construction plans meet guidelines and specifications of building codes and other regulations, and in establishing and monitoring construction work schedules

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

7, R

- A bachelor's degree in civil engineering or in an appropriate, related engineering discipline is required.

- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as a civil engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.

- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Engineering consulting firms

Industries

Municipal and other levels of government

Self-employment

Occupational Options

There is considerable mobility among civil engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, urban planning, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Engineering Managers (0211)

Geological Engineers (2144)

Chemical environmental engineers (in 2134 Chemical Engineers)

2132 Mechanical Engineers

Mechanical Engineers research, design and develop machinery and systems for heating, ventilating and air conditioning, power generation, transportation, processing and manufacturing. They also perform duties related to the evaluation, installation, operation and maintenance of mechanical systems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	3	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L2

EDUCATION/TRAINING

7, R

Examples of Job Titles

- Acoustics Engineer
- Automotive Engineer
- Design Engineer, Mechanical
- Energy Conservation Engineer
- Engineer, Power Generation
- Fluid Mechanics Engineer
- Heating Engineer
- HVAC Engineer
- Mechanical Engineer
- Mechanical Maintenance Engineer
- Nuclear Engineer
- Piping Engineer
- Refrigeration Engineer
- Thermal Design Engineer
- Tool Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct research into the feasibility, design, operation and performance of mechanisms, components and systems, and to evaluate tenders for industrial construction and maintenance
- **Verbal ability** to prepare reports and contract documents
- **Numerical ability** to prepare material, cost and timing estimates, and to review calculations and cost estimates
- **Spatial perception** to prepare design specifications and review design work
- **Form perception** to inspect the installation, modification and commissioning of mechanical systems at construction sites and in industrial facilities
- **Innovative interest** in **synthesizing** information to develop maintenance standards, schedules and programs, and to investigate mechanical failures and unexpected maintenance problems
- **Objective interest** in **precision working** to design power plants, machines, components, tools, fixtures and equipment
- **Directive interest** in **supervising** technicians, technologists and other engineers; and in overseeing the installation, modification and commissioning of mechanical systems at construction sites and in industrial facilities, and in providing guidance to industrial maintenance crews, and approving designs, calculations and cost estimates

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
 - L2 Unregulated inside climate
-

Employment Requirements

Education/Training
7, R

- A bachelor's degree in mechanical engineering or in an appropriate, related engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as a mechanical engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting firms

Industries

Manufacturing industries

Power generating utilities

Processing industries

Self-employment

Transportation industries

Occupational Options

There is considerable mobility among mechanical engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Mechanical engineers work closely with civil, electrical, aerospace, chemical, industrial and other engineers, and mobility is possible among some fields of specialization in these disciplines.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Marine engineering officers (in 2274 *Engineer Officers, Water Transport*)

Power engineers or stationary engineers (in 7351 *Stationary Engineers and Auxiliary Equipment Operators*)

2133 Electrical and Electronics Engineers

Electrical and Electronics Engineers design, plan, research, evaluate and test electrical and electronic equipment and systems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	2	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

- Avionics Engineer
- Control Systems Engineer
- Design Engineer, Electrical
- Distribution Planning Engineer, Electrical
- Electrical Engineer
- Electronics Engineer
- Instrumentation and Control Engineer
- Microwave Systems Engineer
- Network Engineer, Electrical
- Planning Engineer, Electrical Systems
- Radio Systems Engineer
- Roadway-Lighting Design Engineer
- Telecommunications Engineer
- Television Systems Engineer
- Test Engineer, Electronics
- Transmission Planning Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct research into the feasibility, design, operation and performance of electric generation and distribution networks, electrical machinery and components and electronic communications, instrumentation and control systems, equipment and components
- **Verbal ability** to prepare reports and contract documents, and to evaluate tenders for construction or maintenance
- **Numerical ability** to prepare material, cost and timing estimates
- **Spatial perception** to prepare design specifications
- **Form perception** to inspect the installation, modification, testing and operation of systems and equipment
- **Innovative interest** in **synthesizing** information to develop specialized applications and system software, to develop maintenance and operating standards and to investigate failures
- **Objective interest** in **precision working** to design circuits, components, systems and equipment
- **Directive interest** in **supervising** technicians, technologists, programmers, analysts and engineers, and the installation, modification, testing and operation of systems and equipment

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 7, R

- A bachelor's degree in electrical or electronics engineering or in an appropriate, related engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as an electrical or electronics engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.
- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Communication companies

Consulting firms

Electrical utilities

Governments

Manufacturers of electrical and electronic equipment

Manufacturing industries

Processing industries

Transportation industries

Occupational Options

Specialization in electronic engineering fields may occur either in educational programs or in the workplace.

There is considerable mobility among electrical and electronic engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Computer Engineers (2147)

Computer Systems Analysts (2162)

*Aerospace systems engineers (in 2146 *Aerospace Engineers*)*

Remarks

Electrical and electronics engineers may specialize in a number of areas including electrical design for residential, commercial or industrial installations, electrical power generation and transmission, communication systems and instrumentation and control systems.

2134 Chemical Engineers

Chemical Engineers research, design and develop chemical processes and equipment; oversee the operation and maintenance of industrial chemical, plastics, pharmaceutical, resource, pulp and food processing plants; and perform duties related to chemical quality control, environmental protection and biochemical and biotechnical engineering.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	3	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H1, D3

EDUCATION/TRAINING

7, R

Examples of Job Titles

Adhesives Engineer
Biochemical Engineer
Biotechnical Engineer
Chemical Engineer, Environmental
Chemical Process Engineer
Engineer, Chemical
Industrial Hygiene Engineer
Industrial Waste Treatment Engineer
Liquid Fuels Engineer
Petrochemical Engineer
Polymer Engineer
Process Control Engineer, Chemical
Process Engineer
Project Engineer, Chemical
Refinery Engineer
Waste Treatment Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct economic and technical feasibility studies in the areas related to chemical, petroleum, pulp and paper, food and other processing industries; may work in an administrative capacity in the development of guidelines and specifications for environmental protection, the handling of dangerous chemicals and standards for foods, materials and consumer goods
- **Verbal ability** to prepare contract documents and evaluate tenders for industrial construction
- **Numerical ability** apply advanced mathematical computations when analysing data
- **Spatial and form perception** to design chemical processing and associated plants and equipment
- **Innovative interest** in synthesizing information to conduct research into the development and improvement of chemical engineering processes, reactions and materials, and to establish and conduct quality control programs, operating procedures and control strategies to ensure consistency and adherence to standards for raw materials, products and waste products and emissions
- **Objective interest in precision working** to test chemical processing, and associated, plants and equipment, to evaluate chemical process technology and equipment and to determine production specifications
- **Directive interest in supervising** technicians, technologists and engineers; and in overseeing the construction, modification, operation and maintenance of pilot plants, processing units and processing plants

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H1 Dangerous chemical substances

Discomforts

- D3 Odours

Employment Requirements

Education/Training
7, R

- A bachelor's degree in chemical engineering or in an appropriate, related engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as a chemical engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.

- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting firms
Educational institutions
Governments
Manufacturing industries
Processing industries
Research institutions

Occupational Options

There is considerable mobility among chemical engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Chemical engineers work closely with chemists and other scientists and engineers and mobility is possible among some fields of specialization.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Chemists (2112)

Metallurgical and Materials Engineers (2142)

Petroleum Engineers (2145)

Civil environmental engineers
(in 2131 *Civil Engineers*)

Food processing engineers (in 2148 *Other Professional Engineers, n.e.c.*)

Biomedical engineers (in 2148 *Other Professional Engineers, n.e.c.*)

Process control engineers with electrical or electronic specialization
(in 2133 *Electrical and Electronics Engineers*)

Remarks

Chemical engineers may specialize in the products and processes of a particular industry such as pulp and paper manufacturing, petroleum refining, energy processing, plastics, metal extraction and refining or adhesives and coatings production. They may also specialize in areas that are in various industries such as process control, pollution control or fermentation processes.

2141

Industrial and Manufacturing Engineers

Industrial and Manufacturing Engineers conduct studies and develop and supervise programs to achieve efficient industrial production and efficient use of industrial human resources, machinery and materials.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	2	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

- Cost Engineer
- Engineer, Computer Integrated Manufacturing
- Fire Prevention Engineer
- Industrial Engineer
- Manufacturing Engineer
- Methods Engineer
- Plant Engineer
- Production Engineer
- Quality Control Engineer
- Safety Engineer
- Time-Study Engineer
- Work Measurement Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct studies and implement programs to determine optimum inventory levels for production, to allow optimum use of machinery, materials and resources, and to conduct studies of the reliability and performance of plant facilities and production and administrative systems

■ **Verbal ability** to understand and use technical terms in order to determine human resource and skill requirements, and develop training programs, performance standards and evaluation systems

■ **Numerical ability** to analyze costs of production and develop wage and incentive programs

■ **Spatial and form perception** to plan and design plant layouts and facilities, and to value and assess industrial facilities

■ **Innovative interest in synthesizing** information to develop flexible and integrated manufacturing systems and procedures, to establish programs and conduct studies to enhance industrial health and safety, and to identify and correct fire and other hazards

■ **Objective interest in precision working** to design, develop and conduct time studies and work simplification programs, and to study new machinery and facilities

■ **Directive interest in supervising** technicians, technologists, analysts, administrative staff and other engineers; and in recommending and selecting efficient combinations of new machinery and facilities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, R

- A bachelor's degree in industrial engineering or in an appropriate, related engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting firms
 Financial institutions
 Government institutions
 Health care and other institutions
 Manufacturing companies
 Processing companies

Occupational Options

There is considerable mobility among industrial engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, administration or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Organizational analysts (in 1122 *Professional Occupations in Business Services to Management*)

Software engineers (in 2147 *Computer Engineers*)

2142

Metallurgical and Materials Engineers

Metallurgical and Materials Engineers conduct studies of the properties and characteristics of metals and non-metallic materials, and plan, design and develop machinery and processes to concentrate, extract, refine and process metals, alloys and materials such as ceramics, semiconductors and composite materials.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
1	1	1	2	3	3	4	4	4	
INTERESTS									
IOD									
DATA PEOPLE THINGS (DPT)									
031									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
7, R									

- Examples of Job Titles
- Ceramics Engineer

Corrosion Engineer

Electrometallurgical Engineer

Extractive Metallurgist

Foundry Engineer

Hydrometallurgist

Hydrometallurgical Engineer

Materials Engineer

Metallurgical Engineer

Physical Metallurgical Engineer

Pyrometallurgical Engineer

Pyrometallurgist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

■ General learning ability to conduct studies and to design, develop and specify the processes and machinery to concentrate, extract, refine and process metals from ores; and to co-ordinate production, testing and control of metal refining, smelting and foundry operations and non-metallic materials production

■ Verbal ability to advise staff on process changes, reagent consumption and electric current adjustments required to obtain desired processes, and on quality control

■ Numerical ability to prepare operational budgets and evaluate economic feasibilities

■ Spatial and form perception to conduct studies on the properties and characteristics of materials

■ Innovative interest in synthesizing information to design, develop and specify the processes for moulding, shaping, forming and thermal treatment of metals, alloys and metallic systems ceramics, semiconductors and other materials

■ Objective interest in precision working to conduct studies and failure analyses

■ Directive interest in supervising technologists, technicians, engineers and scientists; and in recommending material selection, design of materials, corrosion-control measures, operational testing and other procedures

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training
7, R

- A bachelor's degree in metallurgical, materials, ceramic or chemical engineering or in an appropriate, related engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as a metallurgical or materials engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.
- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting engineering firms
Educational institutions
Governments
Manufacturing companies
Metal processing companies
Mining companies
Research institutions

Occupational Options

There is considerable mobility among engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Metallurgical and materials engineers work closely with other engineers and scientists, and mobility is possible among some fields of specialization.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Chemical Engineers (2134)

Chemists (2112)

Mining Engineers (2143)

Physical metallurgists and materials scientists (in 2115 *Other Professional Occupations in Physical Sciences*)

2143 Mining Engineers

Mining Engineers plan and design the development of mines, mine facilities, systems and equipment, and plan, organize and supervise the extraction of metallic and non-metallic minerals and ores from underground and surface mines.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	1	2	3	4	4	4	4
INTERESTS								
IOD								
DATA PEOPLE THINGS (DPT)								
031								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
3	0	2	3	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
7, R								

Examples of Job Titles

- Mine Design Engineer
- Mine Development Engineer
- Mine Layout Engineer
- Mine Production Engineer
- Mine Safety Engineer
- Mine Ventilation Engineer
- Mineral Engineer
- Mining Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct surveys and studies of ore, mineral and coal deposits to assess the economic and environmental feasibility of potential mining operations, and to determine safe and efficient means of mining deposits
- **Verbal ability** to advise on drilling and blasting methods for mining, construction and demolition, and to prepare project schedules and reports
- **Numerical ability** to prepare operation and project estimates
- **Spatial and form perception** to design shafts, ventilation systems, mine services, haulage systems and supporting structures
- **Innovative interest in synthesizing** information with engineering specialists to plan and design or select mining and mineral treatment equipment, to determine drilling and blasting methods, and to implement and co-ordinate mine safety programs
- **Objective interest in precision working** to design, develop and implement computer applications for operations, such as mine design, modelling and mapping, and for monitoring mine conditions
- **Directive interest in supervising** and co-ordinating the work of technicians, technologists, survey personnel engineers and scientists, and in planning, organizing and supervising the development of mines, mine structures and mine operations and maintenance

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, R

- A bachelor's degree in mining engineering or in an appropriate, related engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as a mining engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.
- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting engineering companies
Educational institutions
Governments
Manufacturers
Mining companies
Research institutions

Occupational Options

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Mining engineers work closely with geologists, geological engineers, metallurgical engineers, and other engineers and scientists, and mobility is possible among some fields of specialization.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Geological Engineers (2144)

Geologists, Geochemists and Geophysicists (2113)

Metallurgical and Materials Engineers (2142)

*Mine managers [in 0811 *Primary Production Managers (Except Agriculture)*]*

2144 Geological Engineers

Geological Engineers conduct studies to analyze geological and geotechnical conditions for civil engineering, mining, and oil and gas projects; and to plan, design, develop and supervise programs of geological data acquisition and analysis and the preparation of reports and recommendations.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	3	3	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

7, R

Examples of Job Titles

- Engineering Geologist
- Geological Engineer
- Geophysical Engineer
- Hydrogeological Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, develop and co-ordinate programs of geotechnical, geological, geophysical and geohydrological data acquisition, analysis and mapping to assist in the development of civil engineering, mining, petroleum and waste management projects, and for regional development
- **Verbal ability** to prepare research and other reports
- **Numerical ability** to perform quantitative analysis of seismic and other geological data
- **Spatial and form perception** to conduct surveys and studies of ore deposits, ore reserve calculations and mine design
- **Innovative interest** in synthesizing information to conduct studies of ground-water flow and contamination; to develop guidelines for site selection, treatment and construction; and to analyze and prepare recommendations for construction and improvement projects such as rock excavation, pressure grouting, rock-slope stabilization and hydraulic-channel erosion control
- **Objective interest in precision working** to design, develop and implement computer applications, and to plan, develop, co-ordinate and conduct studies in mining exploration, evaluation and feasibility
- **Directive interest in supervising** technologists, technicians, engineers and scientists

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training

7, R

- A bachelor's degree in geological engineering or in an appropriate, related discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as a geological engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting engineering companies
 Educational institutions
 Electrical utility companies
 Governments
 Mining companies
 Petroleum companies
 Research institutions

Occupational Options

There is considerable mobility among engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Geological engineers work closely with geologists, and other scientists and engineers, and mobility is possible between some fields of specialization.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Geologists, Geochemists and Geophysicists (2113)

2145 Petroleum Engineers

Petroleum Engineers conduct studies related to the exploration, development and extraction of oil and gas deposits; plan, design, develop and supervise projects for the drilling, completion, testing and reworking of oil and gas wells; and conduct analyses of oil and gas reserves and production potential.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	3	3	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H8

EDUCATION/TRAINING

7, R

Examples of Job Titles

Drilling Engineer, Oil and Gas
Petroleum Engineer
Petroleum Engineer, Completion
Production Engineer, Oil and Gas
Reservoir Engineer, Petroleum
Subset Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to direct and monitor oil- and gas-drilling operations, to develop drilling programs and select sites and to specify programs for corrosion control and oil and gas treatment
- **Verbal ability** to understand technical terms when preparing reports
- **Numerical ability** to determine oil-gas ratios of producing wells, and to designate allowable flows to meet proration regulations
- **Spatial perception** to develop specifications for well modification and stimulation programs, to study geological surveys and other data including samples, and to map inclinations of boreholes from photographic records and observations obtained from subsurface directional surveys
- **Form perception** to analyze reservoir rock and fluid data in order to design optimum recovery methods and to predict reservoir performance and reserves
- **Innovative interest** in synthesizing information to conduct technical and economic analyses to recommend improved production methods, to design, develop and co-ordinate the installation, maintenance and operation of subsea well-head and production equipment
- **Objective interest in precision working** to specify drilling fluids, bit selection, drill-stem testing procedures and equipment, and to design and select artificial lift machinery and well and surface production equipment and systems
- **Directive interest in supervising** well modifications and stimulation programs to maximize oil and gas recovery, to monitor reservoir performance, and to direct and monitor completions and evaluations of wells, well testing and well surveys

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Hazards

H8 Dangerous locations

Employment Requirements

Education/Training
7, R

- A bachelor's degree in petroleum engineering or in an appropriate, related engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as a petroleum engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.

- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting companies
Educational institutions
Governments
Petroleum producing companies
Research institutions
Well-logging or testing companies

Occupational Options

There is mobility among petroleum engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Chemical Engineers (2134)

Geological Engineers (2144)

Geologists, Geochemists and Geophysicists (2113)

Supervisors, Oil and Gas Drilling and Service (8222)

Remarks

Petroleum engineers may specialize in drilling, production, reservoir analysis or subset operations.

2146 Aerospace Engineers

Aerospace Engineers research, design and develop aircraft, spacecraft, missiles, aerospace components and systems, and perform duties related to the testing, evaluation, installation, operation and maintenance of aerospace vehicles and systems.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	1	2	2	4	4	4	4
INTERESTS								
IOD								
DATA PEOPLE THINGS (DPT)								
031								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
3	0	2	3	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
7, R								

Examples of Job Titles

Aerodynamics Engineer
Aeronautical Engineer
Aerospace Engineer
Aircraft Design Engineer
Stress Engineer, Aerospace
Structural Engineer, Aerospace
Systems Engineer, Aerospace
Test Engineer, Aerospace

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design and develop aerospace components, vehicles and systems and to develop the technical phases of logistical and operational support
- **Verbal ability** to prepare manuals for operators
- **Numerical ability** to prepare cost estimates
- **Spatial and form perception** to prepare drawings and specifications for materials and processes to be used in manufacturing, maintenance, repairs and modifications
- **Innovative interest** in synthesizing information to investigate, report and recommend corrective actions for structural, component and system failures, and to develop operational specifications and maintenance schedules
- **Objective interest in precision working** to develop and conduct computer simulations
- **Directive interest in supervising** and co-ordinating the manufacturing, assembly, modification, repair and overhaul of aircraft and spacecraft, and to co-ordinate ground and flight tests

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
-

Employment Requirements

Education/Training

7, R

- A bachelor's degree in aerospace engineering or in an appropriate, related engineering discipline, such as mechanical engineering or engineering physics, is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as an aerospace engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation of engineers is mandatory.
-

Workplaces/Employers

Air transport carriers

Aircraft and spacecraft manufacturers

Educational institutions

Governments

Research institutions

Occupational Options

There is considerable mobility among aerospace engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Aerospace engineers work closely with other scientists and engineers, and mobility is possible among some fields of specialization.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Aircraft maintenance engineers (AMEs) (in 7315 *Aircraft Mechanics and Aircraft Inspectors*)

Aircraft maintenance engineers, avionics (in 2244 *Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors*)

2147.1 Computer Hardware Engineers

Computer Hardware Engineers research, plan, design, develop and test computers and related equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	1	3	3	3	4	4	4

INTERESTS

IDO

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

- Computer Engineer
- Computer Hardware Engineer
- Computer Systems Engineer
- Hardware Engineer
- Systems Design Engineer
- Systems Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, design and co-ordinate the development of computers and related equipment
- **Verbal ability** to confer with engineers and specialists to solve problems related to design and development
- **Numerical ability** to understand and apply advanced mathematical principles to computer systems, and to prepare time, cost and resource estimates for projects and reviews
- **Spatial and form perception** to prepare design specifications and develop performance specifications for mainframes, terminals and other peripherals from functional specifications
- **Innovative interest** in **synthesizing** information to inspect computers and related equipment, and to research, evaluate and plan the implementation of hardware, and/or computer environmental protection and control facilities
- **Directive interest** in **supervising** drafters, technicians, technologists and engineers; and in overseeing the installation, modification and testing of computer systems
- **Objective interest** in **precision working** to design and develop computers and related equipment, to perform measurement and tracking tasks, and to conduct post-implementation audits of installed hardware and environmental protection and control facilities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, R

- Computer hardware engineers require a bachelor's degree in computer engineering, electrical or electronics engineering or engineering physics.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is sometimes required for employment and to practise as a computer engineer.
- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Computer manufacturers

Educational institutions

Governments

Research institutions

Occupational Options

There is considerable mobility among engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Computer engineers work closely with computer programmers, systems analysts, electrical and electronics engineers and other scientists and engineers, and mobility is possible among these fields of specialization.

Supervisory and senior positions in this group require experience.

With experience, progression to engineering management, marketing or sales is possible.

Similar Occupations Classified Elsewhere

Computer Programmers (2163)

Computer Systems Analysts (2162)

Electrical and Electronics Engineers (2133)

Engineering Managers (0211)

Technical Sales Specialists, Wholesale Trade (6221)

2147.2 Software Engineers

Software Engineers design and develop software for engineering and industrial applications.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	1	3	3	3	4	4	4

INTERESTS

IMD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

- Computer Applications Engineer
- Computer Engineer
- Computer Software Engineer
- Software Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to analyze the requirements for applications of computer technology in real-time environments for process and machine control equipment, instrumentation, robotics, telecommunications, environmental monitoring, remote sensing, medical and related engineering, scientific and industrial applications
- **Verbal ability** to understand computer terms and languages
- **Numerical ability** to understand the mathematical principles governing the development of computer languages and software
- **Spatial and form perception** to understand computer configurations and to design computer languages and software
- **Clerical perception** to avoid errors in programming and mathematical computations
- **Innovative interest** in synthesizing information to design, develop and test computer languages and software, or to co-ordinate the development, testing and implementation of languages and software

- **Methodical interest in precision working** to logical and performance specifications from predetermined functional specifications
- **Directive interest in supervising** the work of programmers, technologists, technicians and engineering and scientific personnel

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training
7, R

- Software engineers require a bachelor's degree in computer engineering, electrical or electronics engineering, engineering physics, computer science, physics or mathematics.

- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is sometimes required for employment and to practise as a computer engineer.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Companies which devise embedded software for inclusion in other products

Consulting companies providing software-related information technology services

Educational institutions

Governments

Research institutions

Software manufacturers

Software marketing companies

Occupational Options

There is considerable mobility among engineering specializations at the less senior levels.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Computer engineers work closely with computer programmers, systems analysts, electrical and electronics engineers and other scientists and engineers, and mobility is possible among these fields of specialization.

Supervisory and senior positions in this group require experience.

With experience, progression to engineering management, marketing or sales is possible.

Similar Occupations Classified Elsewhere

Computer Programmers (2163)

Computer Systems Analysts (2162)

Electrical and Electronics Engineers (2133)

Engineering Managers (0211)

Technical Sales Specialists, Wholesale Trade (6221)

2148.1 Agricultural Engineers

Agricultural Engineers study and advise on engineering problems related to agriculture, and design agricultural machinery, structures and equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	1	2	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

021

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

Agricultural Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to study engineering problems related to agriculture, and to develop criteria for design, manufacture and construction of equipment, structures and facilities
- **Verbal ability** to confer with engineers and scientists to solve problems
- **Numerical ability** to conduct analyses of data collected from research and developmental studies, and to design sensing, measuring and recording devices and instrumentation
- **Spatial and form perception** to prepare design specifications
- **Innovative interest** in **synthesizing** information to develop criteria for the design, manufacture and construction of equipment, structures and facilities

- **Objective interest** in **precision working** to design machinery, equipment and systems, and to use technical equipment and work aids to conduct experiments
- **Directive interest** in **consulting** in order to advise on engineering problems, and to supervise installation of equipment and instruments

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
-

Employment Requirements

Education/Training

7, R

- A bachelor's degree in an appropriate engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as an engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.

- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.
-

Workplaces/Employers

Consulting engineering firms

Educational institutions

Governments

Industry

Research facilities

Occupational Options

There is limited mobility among the engineering specializations included in the 2148 group.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Biochemical engineers (in 2134 *Chemical Engineers*)

Marine engineer officers - water transport (in 2274 *Engineer Officers, Water Transport*)

Physicists (in 2111 *Physicists and Astronomers*)

2148.2 Biomedical Engineers

Biomedical Engineers apply established engineering principles to design and develop new diagnostic and clinical instrumentation and procedures for medical practice and biological research.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	1	3	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

021

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

Biomedical Engineers
Clinical Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design and develop medical diagnostic and clinical instrumentation, equipment and procedures, and to study engineering aspects of life support systems using knowledge of electrical, mechanical, chemical and other engineering principles, and knowledge of anatomy and physiology

- **Verbal ability** to collaborate with clinical teams throughout patients' rehabilitation including prescription of treatment and evaluation of progress
- **Numerical ability** to conduct data analyses
- **Spatial and form perception** to prepare design specifications
- **Innovative interest** in **synthesizing** information to plan and conduct research concerning life systems, and to develop diagnostic instrumentation, equipment, procedures and devices to assist people with disabilities
- **Objective interest** in **precision working** to modify and install medical equipment
- **Directive interest** in **instructing** and advising hospital administrators on the planning, acquisition and use of equipment, to supervise installation of equipment, and to oversee the activities of biomedical technologists and technicians

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education /Training

7, R

- A bachelor's degree in an appropriate engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as an engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting engineering firms
Educational institutions
Governments
Industry
Research facilities

Occupational Options

There is limited mobility among the engineering specializations included in the 2148 group.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Biochemical engineers (in 2134 *Chemical Engineers*)

Marine engineer officers - water transport (in 2274 *Engineer Officers, Water Transport*)

Physicists (in 2111 *Physicists and Astronomers*)

2148.3 Engineering Physicists and Engineering Scientists

Engineering Physicists and Engineering Scientists conduct research to expand fundamental knowledge in applied sciences.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	1	3	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

Engineering Physicist
Engineering Scientist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct research to expand fundamental knowledge in applied sciences and engineering, and to support advanced engineering and scientific applications
- **Verbal ability** to collaborate with engineers and scientists in the development of processes, programs and equipment
- **Numerical ability** to conduct data analyses
- **Spatial and form perception** to prepare design specifications
- **Innovative interest** in synthesizing information to develop processes, programs and equipment
- **Objective interest** in precision working with technical equipment when conducting experiments
- **Directive interest** in supervising the work of technologists and technicians

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education /Training

7, R

- A bachelor's degree in an appropriate engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as an engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.
- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting engineering firms
Educational institutions
Governments
Industry
Research facilities

Occupational Options

There is limited mobility among the engineering specializations included in the 2148 group.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Biochemical engineers (in 2134 *Chemical Engineers*)

Marine engineer officers - water transport (in 2274 *Engineer Officers, Water Transport*)

Physicists (in 2111 *Physicists and Astronomers*)

2148.4 Food Processing Engineers

Food Processing Engineers conduct research to expand fundamental knowledge in engineering related to food processing.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	1	3	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

Food Processing Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design and develop processes, equipment and procedures for the processing, storage, packaging and handling of food products
- **Verbal ability** to collaborate with engineers and scientists in the development of processes, equipment and procedures
- **Numerical ability** to conduct data analyses
- **Spatial and form perception** to prepare design specifications
- **Innovative interest** in synthesizing information to develop processes, equipment and procedures
- **Objective interest** in precision working with technical equipment when conducting experiments
- **Directive interest** to supervise the work of technologists and technicians

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
-

Employment Requirements

Education /Training

- 7, R

- A bachelor's degree in an appropriate engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as an engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting engineering firms

Educational institutions

Governments

Industry

Research facilities

Occupational Options

There is limited mobility among the engineering specializations included in the 2148 group.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Biochemical engineers (in 2134 *Chemical Engineers*)

Marine engineer officers - water transport (in 2274 *Engineer Officers, Water Transport*)

Physicists (in 2111 *Physicists and Astronomers*)

2148.5 Marine and Naval Engineers

Marine and Naval Engineers design and supervise installations and repairs of power plants, propulsion systems, heating and ventilating systems and other mechanical and electrical equipment in marine and naval facilities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	1	2	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

031

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

Marine Engineer
Naval Architect
Naval Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the principles of engineering related to the design and development of marine vessels, structures, systems and equipment
- **Verbal ability** to confer with other engineers and specialists to solve problems
- **Numerical ability** to perform complex calculations
- **Spatial and form perception** to prepare design specifications
- **Innovative interest** in synthesizing information to design and develop marine vessels, floating structures, marine power plants, propulsion systems and related systems and equipment
- **Objective interest** in precision working with instruments to test marine systems and equipment
- **Directive interest** in supervising to oversee the building, maintenance and repair of vessels and marine systems

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, R

- A bachelor's degree in an appropriate engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as an engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting engineering firms

Educational institutions

Governments

Industry

Research facilities

Occupational Options

There is limited mobility among the engineering specializations included in the 2148 group.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Biochemical engineers (in 2134 *Chemical Engineers*)

Marine engineer officers - water transport (in 2274 *Engineer Officers, Water Transport*)

Physicists (in 2111 *Physicists and Astronomers*)

2148.6 Textile Engineers

Textile Engineers design and develop processes, equipment and procedures for the production of fibres, yarns and textiles.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
1	1	1	1	3	4	4	4	4	
INTERESTS									
IOD									
DATA PEOPLE THINGS (DPT)									
031									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	3	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
7, R									

Examples of Job Titles

Textile Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to conduct research to expand fundamental knowledge in engineering related to the production of fibres, yarns and textiles

- Verbal ability to confer with engineers and scientists to solve problems
- Numerical ability to conduct data analyses
- Spatial and form perception to prepare design specifications
- Innovative interest in synthesizing information to develop processes, equipment and procedures
- Objective interest in precision working with technical equipment when conducting experiments
- Directive interest to supervise the work of technologists and technicians

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 7, R

- A bachelor's degree in an appropriate engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as an engineer.

- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of supervised work experience in engineering and, in some provinces, after passing a professional practice examination.

- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.

- In Quebec, membership in the professional corporation for engineers is mandatory.

Workplaces/Employers

Consulting engineering firms

Educational institutions

Governments

Industry

Research facilities

Occupational Options

There is limited mobility among the engineering specializations included in the 2148 group.

Engineers often work in a multidisciplinary environment and acquire knowledge and skills through work experience that may allow them to practise in associated areas of science, engineering, sales, marketing or management.

Supervisory and senior positions in this group require experience.

Similar Occupations Classified Elsewhere

Biochemical engineers (in 2134 *Chemical Engineers*)

Marine engineer officers - water transport (in 2274 *Engineer Officers, Water Transport*)

Physicists (in 2111 *Physicists and Astronomers*)

2151 Architects

Architects conceptualize, plan and develop designs for the construction and renovation of commercial, institutional and residential buildings.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	1	1	2	3	3	3	3

INTERESTS
ISD

DATA PEOPLE THINGS (DPT)
031

PHYSICAL ACTIVITIES (PA)					
V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)
L1, L2, L3

EDUCATION/TRAINING
5+, 7+, R

Examples of Job Titles

- Architect
- Architectural Standards Specialist
- Chief Architect
- Consulting Architect
- Industrial and Commercial Buildings Architect
- Residential Architect

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to acquire knowledge of architectural principles and practises, and to compile and evaluate information to develop building designs
- **Numerical ability** to conduct feasibility studies and financial analyses of building projects
- **Verbal ability** to consult with clients to determine types, styles and purposes for renovations and new building construction
- **Spatial perception** to prepare or supervise preparation of blueprints for use by contractors and tradespersons
- **Form perception** to design buildings and plan layout of structures
- **Innovative interest in synthesizing** information to conceptualize and design buildings, and to develop plans describing design specifications, building materials, cost and construction schedules
- **Social interest in precision working** to prepare sketches and models for clients
- **Directive interest in supervising** activities on sites to ensure that construction complies with specifications; and in hiring and supervising contractors and other personnel

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
- L2 Unregulated inside climate
- L3 Outside

Employment Requirements

Education/Training

5+, 7+, R

- A bachelor's degree from a recognized school of architecture and two years of experience under the supervision of a registered architect
or
completion of the syllabus of studies from the Royal Architectural Institute of Canada (RAIC) and eight years of on-the-job training under supervision of a registered architect are required.
- Completion of examinations set by provincial associations of architects is required.
- Registration with the provincial association of architects in the province of work is required.
- In Quebec, membership in the professional corporation for architects is mandatory.

Workplaces/Employers

Architectural firms
Governments
Private corporations
Self-employment

Occupational Options

Progression to senior positions, such as chief architect, is possible with experience.

Similar Occupations Classified Elsewhere

Architecture and Science Managers
(0212)

Landscape Architects (2152)

Naval architects (in 2148 *Other Professional Engineers, n.e.c.*)

Structural engineers (in 2131 *Civil Engineers*)

Remarks

Architects usually specialize in a particular type of construction such as residential, commercial, industrial or institutional.

2152 Landscape Architects

Landscape Architects develop landscape designs, work out contract documents and oversee the construction of landscape development for commercial projects, office complexes, parks, golf courses and residential development.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	2	1	2	3	3	3	3

INTERESTS
ISD

DATA PEOPLE THINGS (DPT)
031

PHYSICAL ACTIVITIES (PA)					
V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)
L1, L3

EDUCATION/TRAINING
7, 8, R

Examples of Job Titles

Architect, Landscape
Landscape Architect

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to survey and assess sites, to develop designs taking into consideration landscape features, buildings, climate, future usage and other aspects, and to evaluate tenders for landscape construction projects
- **Verbal ability** to confer with clients to determine design needs, and to prepare reports and land-use studies
- **Numerical ability** to prepare cost estimates for landscape construction projects
- **Spatial and form perception** to prepare detailed drawings and site plans including features such as trees, shrubs, gardens, lighting, walk-ways, patios, decks, benches, fences, retaining walls and fountains
- **Innovative interest** in synthesizing information to conduct environmental design studies including environmental assessment, planning and the preservation and re-creation of historical sites
- **Social interest in precision working** to prepare detailed drawings for sites, site plans, reports, sketches, models, sketches and models for clients' approval
- **Directive interest in supervising** and overseeing the preparation of detailed drawings, site plans, reports, sketches, models, photographs, maps, land-use studies and design plans; may manage and supervise landscape construction work

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training

7, 8, R

- A bachelor's degree in landscape architecture is required.
- A master's degree in landscape architecture may be required.
- In Ontario and British Columbia, landscape architects require some landscape design experience and the successful completion of a provincial registration exam.
- In the remaining provinces and territories, landscape architects require some landscape design experience and an interview by their respective provincial associations to receive association certification.

Workplaces/Employers

Architectural firms

Engineering firms

Government environmental and development agencies

Landscape consulting firms

Landscape contractors

Self-employment

Similar Occupations Classified Elsewhere

Architects (2151)

Landscape and Horticulture Technicians and Specialists (2225)

Urban and Land Use Planners (2153)

Landscape architecture managers
(in 0212 *Architecture and Science Managers*)

Landscape design contractors
(in 8255 *Landscaping and Grounds Maintenance Contractors and Managers*)

2153 Urban and Land Use Planners

Urban and Land Use Planners develop plans and recommend policies for managing the use of land, physical facilities and associated services for urban and rural areas and remote regions.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS								
ISD								

DATA PEOPLE THINGS (DPT)								
031								

PHYSICAL ACTIVITIES (PA)					
V	C	H	B	L	S
2	1	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)								
L1								

EDUCATION/TRAINING								
7, 8, R								

Examples of Job Titles

- City Planner
- Community and Urban Planner
- Environment Planner
- Land Use Planner
- Long-Range Planner
- Municipal Planner
- Park Planner
- Planner
- Planning Analyst
- Recreation Planner
- Regional Planner
- Urban Planner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to prepare and recommend land development concepts and plans for zoning, subdivisions, transportation, public utilities, community facilities, parks, agricultural and other land uses, and to formulate long-range objectives and policies regarding future land use and protection of the environment
- **Verbal ability** to confer with municipal, provincial and federal authorities, civic leaders, social scientists, lawyers, land developers, the public and special interest groups to formulate and develop land use and community plans
- **Numerical ability** to compile and analyze data on demographic, economic, legal, political, cultural, sociological, physical and other factors affecting land use
- **Spatial perception** to prepare environmental protection plans for wildlife preserves, national and provincial parks, and watersheds
- **Innovative interest** in synthesizing information to review and evaluate proposals for land use and development plans, and to prepare recommendations
- **Social interest** in presenting plans to civic, rural and regional authorities and in holding public meetings to present plans, proposals and studies to the general public and special interest groups
- **Directive interest** in supervising and co-ordinating the work of urban planning technicians and technologists; and in **precision working** to process applications for land development permits and to administer land-use plans and zoning by-laws

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, 8, R

- A bachelor's degree in urban and regional planning, geography, architecture, engineering or a related discipline is required.

- A master's degree in one of these disciplines may be required.

- Membership in the Canadian Institute of Planners is usually required.

- Membership in a provincial planning institute may be required in some provinces.

- In Quebec, membership in the professional corporation for urban planners is mandatory.

Workplaces/Employers

Engineering and other consulting companies

Governments

Land developers

Private consultants

Occupational Options

Progression to management positions in planning is possible with experience.

Similar Occupations Classified Elsewhere

Architects (2151)

Land Surveyors (2154)

Managers in land use planning
(in 0411 *Government Managers in Health and Social Policy Development and Program Administration*)

2161.1 Mathematicians

Mathematicians research mathematical theories, and develop and apply mathematical techniques to solve problems in such fields as science, engineering, business and the social sciences.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	1	2	3	2	4	4	4
INTERESTS								
IMD								
DATA PEOPLE THINGS (DPT)								
088								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	1	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
8								

Examples of Job Titles

Mathematician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the fundamental theories of algebra, geometry, probability, logic and other branches of mathematics
- **Verbal ability** to communicate research findings
- **Numerical ability** to perform computations and apply methods of numerical analysis
- **Spatial perception** to comprehend and visualize mathematical forms and to present data in tables and graphs
- **Clerical perception** to perceive detail in numerical material and avoid errors in computations
- **Innovative interest** in synthesizing data to conduct research to extend knowledge in traditional areas of mathematics, to develop and improve mathematical techniques and to solve problems in other areas such as scientific research, engineering and management
- **Methodical interest** in applying mathematical techniques to the solution of problems in scientific fields such as physical science, engineering, computer science and other fields including operations research, business and management; and in using computing equipment and measuring instruments
- **Directive interest** in advising researchers concerning mathematical applications and methods

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- A graduate degree in mathematics is required.

Workplaces/Employers

Banks and trust companies

Governments

Insurance companies

Pension-benefit consulting firms

Science and engineering consulting firms

Universities

Similar Occupations Classified Elsewhere

*Computer Systems Analysts (2162)**Financial and Investment Analysts (1112)**Financial Auditors and Accountants (1111)**Other Financial Officers (1114)*

2161.2 Statisticians

Statisticians research statistical theories, and develop and apply statistical techniques to solve problems in such fields as science, engineering, business and the social sciences.

Profile Summary

APTITUDES									
G	V	N	S	P	Q	K	F	M	
1	1	1	2	3	2	4	4	4	
INTERESTS									
IMD									
DATA PEOPLE THINGS (DPT)									
088									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	1	1	1	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
8									

Examples of Job Titles

Biostatistician
Demographer
Statistical Analyst
Statistician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the mathematical basis of statistics
- **Verbal ability** to communicate research findings
- **Numerical ability** to perform computations and apply methods of numerical analysis
- **Spatial perception** to comprehend and visualize in statistical terms and to present data in tables and graphs
- **Clerical perception** to perceive detail in numerical material and avoid errors in mathematical computations
- **Innovative interest** in synthesizing data to conduct research into the mathematical basis of statistics; and in developing statistical methodology
- **Methodical interest** in applying statistical theory and methods to provide information in scientific and other fields such as biological and agricultural science, business and economics, physical sciences and engineering and the social sciences
- **Directive interest** in advising on the practical application of statistical methodology

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- A graduate degree in statistics is required.

Workplaces/Employers

Banks and trust companies

Governments

Insurance companies

Pension-benefit consulting firms

Science and engineering consulting firms

Universities

Similar Occupations Classified Elsewhere

*Computer Systems Analysts (2162)**Financial and Investment Analysts (1112)**Financial Auditors and Accountants (1111)**Other Financial Officers (1114)*

2161.3 Actuaries

Actuaries apply mathematical and statistical methods to calculate premium and benefit payments for insurance and annuities.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
1	1	1	2	3	2	4	4	4
INTERESTS								
IMD								
DATA PEOPLE THINGS (DPT)								
028								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	1	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
6+, 7+, R								

Examples of Job Titles

Actuary
Insurance Actuary

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand mathematics, probability, statistics and risk theory

- **Verbal and numerical ability** to communicate the results of calculations of future risks associated with insurance, annuity and pension programs
- **Spatial and clerical perception** to construct probability tables used to calculate premium rates and policy values
- **Innovative interest** in synthesizing information to conduct research and to design insurance, annuity and pension plans
- **Methodical interest** in preparing records on mortality, sickness, accident, disability and retirement based on research and analysis of statistical, economic and other data
- **Directive interest in consulting** to provide legal evidence on the value of future earnings; may supervise the activities of workers engaged in preparing and processing contracts and insurance, annuity and pension policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- Actuaries usually require an undergraduate degree or college diploma in mathematics, statistics or operations research to complete professional examinations successfully *and* three years of work experience in the actuarial field as a actuarial assistant or in a related position.

- Accreditation with the Canadian Institute of Actuaries is required.

Workplaces/Employers

Banks and trust companies

Governments

Insurance companies

Pension-benefit consulting firms

Science and engineering consulting firms

Universities

Similar Occupations Classified Elsewhere

*Computer Systems Analysts (2162)**Financial and Investment Analysts (1112)**Financial Auditors and Accountants (1111)**Other Financial Officers (1114)*

2162 Computer Systems Analysts

Computer Systems Analysts analyze information processing and computational needs, design computer systems that provide solutions and perform computations, analyze databases and supervise computer programmers.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	2	2	3	3	4	4	4
INTERESTS								
IMD								
DATA PEOPLE THINGS (DPT)								
221								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	2	1	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1								
EDUCATION/TRAINING								
6, 7								

Examples of Job Titles

- Applications Analyst - Computer Systems
- Business Systems Specialist
- Computer Analyst
- Computer Consultant
- Computer Graphics Specialist
- Consultant, Management Information Systems (MIS)
- Electronic Data Processing (EDP) Analyst
- Management Information Systems (MIS) Analyst
- Project Manager - Computer Systems
- Systems Analyst
- User Support Analyst - Computer Systems

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to analyze clients' information, processing and computational needs and to design computer systems in order to provide solutions
- **Verbal ability** to confer with clients regarding the nature of information processing and computational needs, and to communicate program specifications to computer programmers
- **Numerical ability and spatial and form perception** to write requirement specifications for computer programs, identifying the steps in the program and algorithms to be employed
- **Innovative interest in analyzing,** generating and developing databases and database directories
- **Methodical interest in precision working** to test and implement computer programs and provide user training; and in maintaining databases
- **Directive interest in consulting** to plan and implement computer security systems; may supervise computer programmers and other systems analysts or serve as project leaders for particular systems projects

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7

- A bachelor's degree, usually in computer science, mathematics, commerce or business administration
or
completion of a college program in computer science is usually required.
- Experience as a computer programmer is usually required.
- Specialization in commercial or engineering and scientific applications requires specific post-secondary study or experience.

Workplaces/Employers

Computer consulting firms

Computer system units throughout private and public sectors

Occupational Options

Supervisory and senior positions in this group require experience.

Progression to information system and data processing managers is possible with experience.

Similar Occupations Classified Elsewhere

*Computer Engineers (2147)**Information Systems and Data Processing Managers (0213)*Computer service technicians
[in 2242 *Electronic Service Technicians (Household and Business Equipment)*]Computer training representatives
(in 4131 *College and Other Vocational Instructors*)Programmer analysts (in 2163 *Computer Programmers*)

2163 Computer Programmers

Computer Programmers write computer programs by coding sets of instructions into machine-readable form.

Profile Summary

APTITUDES									
G	V	N	S	P	Q	K	F	M	
2	2	2	3	3	3	4	4	4	
INTERESTS									
IMD									
DATA PEOPLE THINGS (DPT)									
261									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	1	1	1	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
6, 7									

Examples of Job Titles

- Application Programmer
- Business Programmer
- Computer Programmer
- Operating Systems Programmer
- Programmer Analyst
- Programmer - Computer Systems
- Scientific Programmer
- Software Development Programmer
- Software Programmer
- Systems Programmer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and numerical ability** to write computer software programs and develop software packages by coding instructions and algorithms into machine-readable form
- **Verbal ability** to understand and use computer terminology
- **Innovative interest in analyzing** information to debug computer software programs and solve computer problems for users
- **Methodical interest in precision working** to test, document and implement computer software programs and to maintain existing programs by making minor modifications
- **Directive interest in speaking** with users and in acting as a resource person

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant

Hearing	
1	Limited

Body Position	
1	Sitting

Limb Co-ordination	
1	Upper limb co-ordination

Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6, 7

- A bachelor's degree in computer science or in another discipline with a significant programming component, such as mathematics, commerce or business administration, or completion of a college program in computer science is usually required.
- Specialization in commercial or engineering and scientific applications requires specific post-secondary study or experience.

Workplaces/Employers

Computer consulting firms
Computer software firms
Programming units throughout private and public sectors

Occupational Options

Senior positions in this group, such as programmer analyst, require experience.

Progression to computer systems analyst is possible with experience.

Similar Occupations Classified Elsewhere

Computer Operators (1421)

Computer Systems Analysts (2162)

Computer service technicians [in 2242 *Electronic Service Technicians (Household and Business Equipment)*]

Computer training representatives (in 4131 *College and Other Vocational Instructors*)

2211.1 Applied Chemical Technologists

Applied Chemical Technologists may work independently or provide technical support in chemical engineering, chemical and biochemical research and analysis, industrial chemistry, chemical quality control and environmental monitoring.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	2	3	2	3	3	3	3
INTERESTS								
OIM								
DATA PEOPLE THINGS (DPT)								
231								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	1	1	3	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1, H1, D3*								
EDUCATION/TRAINING								
6, R								

Examples of Job Titles

Biochemistry Technologist
Chemical Analyst
Chemical Engineering Technologist
Chemical Laboratory Analyst
Chemical Technologist
Food Technologist
Industrial Hygiene Technologist
Laboratory Technologist, Chemical
Master Dyer, Textiles

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to set up and conduct chemical experiments, tests and analyses using techniques such as chromatography, spectroscopy, microscopy, and physical and chemical separation techniques
- **Verbal and numerical ability** to compile and interpret results of experiments and analyses
- **Form perception** to assist in the design and fabrication of apparatus for experiments
- **Objective interest in precision working** to operate and maintain laboratory equipment and apparatus, and to operate chemical and petrochemical pilot plants for experimental purposes
- **Innovative interest in analyzing** data to develop and conduct programs of sampling and analysis in order to maintain quality standards of raw materials, chemical intermediates and products
- **Methodical interest in supervising** the work of technicians and tradespersons; in assisting in the development of chemical engineering processes, standards, procedures and health and safety measures; in assisting in studies of chemical engineering procurement, construction, inspection and maintenance; and in preparing solutions, reagents and sample formulations

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H1 Dangerous chemical substances

Discomforts

- D3*Odours

Employment Requirements

Education/Training

- 6, R

- Applied chemical technologists usually require completion of a two- or three-year college program in chemical, biochemical or chemical engineering technology or a closely related discipline.

- Certification in chemical engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Chemical, petrochemical, pharmaceutical manufacturing and consulting engineering companies

Processing industries

Quality control laboratories

Research and development laboratories

Utilities, health, education and government establishments

Occupational Options

Considerable mobility is possible among jobs within this occupational group.

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Biochemistry technologists working as medical laboratory technologists (in 3211 *Medical Laboratory Technologists and Pathologists' Assistants*)

Process technicians who operate the controls of chemical or petrochemical processing plants (in 9232 *Petroleum, Gas and Chemical Process Operators*)

Remarks

Some chemical technologists working in support of fundamental research in chemistry or biochemistry are university graduates.

*Environmental Conditions

- For some occupations in this group, Discomforts D3 (Odours) may apply.

2211.2 Applied Chemical Technicians

Applied Chemical Technicians may work independently or provide technical support in chemical engineering, chemical and biochemical research and analysis, industrial chemistry, chemical quality control and environmental monitoring.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	3	3	3	2	3	3	3	3
INTERESTS								
MOi								
DATA PEOPLE THINGS (DPT)								
371								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	1	1	3	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1, H1, D3*								
EDUCATION/TRAINING								
6, R								

Examples of Job Titles

- Analytical Technician, Chemical
- Chemical Analyst
- Chemical Engineering Technician
- Chemical Laboratory Analyst
- Chemical Research Technician
- Chemical Technician
- Formulation Technician
- Geochemical Technician
- Laboratory Technician, Biochemistry
- Laboratory Technician, Chemical
- Mass Spectrometer Technician
- Master Dyer, Textiles
- Paint Technician
- Pilot Plant Technician
- Quality Control Technician - Chemical Processing
- Quality Control Technician - Food Processing

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist in setting up and conducting chemical experiments, tests and analyses
- **Form perception** to assist in the design and fabrication of apparatus used for experiments
- **Methodical interest in compiling** records for analytical studies; and in preparing solutions, reagents and sample formulations
- **Objective interest in precision working** to operate and maintain laboratory equipment and apparatus
- **Innovative interest in assisting** to develop and conduct programs of sampling and analysis to maintain quality standards; and in carrying out a limited range of other technical functions in support of chemical research, tests and analyses

Physical Activities

Vision

- 2 Near vision

Colour Vision

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H1 Dangerous chemical substances

Discomforts

- D3*Odours

Employment Requirements

Education/Training

6, R

- Applied chemical technicians usually require completion of a one- or two-year college program in chemical, biochemical or chemical engineering technology.
- Certification in chemical engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers.

- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Chemical, petrochemical, pharmaceutical manufacturing and processing industries

Consulting engineering companies

Quality control laboratories

Research and development laboratories

Utilities, health, education and government establishments

Occupational Options

Considerable mobility is possible among jobs within this occupational group.

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Biochemistry technologists working as medical laboratory technologists (in 3211 *Medical Laboratory Technologists and Pathologists' Assistants*)

Process technicians who operate the controls of chemical or petrochemical processing plants (in 9232 *Petroleum, Gas and Chemical Process Operators*)

Remarks

Some chemical technicians working in support of fundamental research in chemistry or biochemistry are university graduates.

*Environmental Conditions

- For some occupations in this group, Discomforts D3 (Odours) may apply.

2212.1 Geological and Mineral Technologists

Geological and Mineral Technologists may work independently or provide technical support and services in the fields of oil and gas exploration and production, geophysics, petroleum engineering, geology, mining and mining engineering, mineralogy, extractive and physical metallurgy and metallurgical engineering.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	2	2	2	3	3	3	3
INTERESTS								
Old								
DATA PEOPLE THINGS (DPT)								
231								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
3	1	2	3	1	2			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L3, H1, H8*, D3								
EDUCATION/TRAINING								
6, R								

Examples of Job Titles

- Assayer
- Geophysical Technologist
- Ground-Water Technologist
- Marine Geoscience Technologist
- Metallurgical Technologist
- Mining Engineering Technologist
- Mining Technologist
- Petroleum Engineering Technologist
- Welding Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct or direct geological, geophysical, hydrographic and oceanographic and prospecting surveys, and exploratory drilling, well-logging and underground mine-survey programs; may conduct or supervise studies and programs related to mine development, mining methods and mine ventilation, lighting, drainage and ground control

- **Verbal and numerical ability** to prepare reports; and to prepare, transcribe and analyze seismic, gravimetric, well-log and other geophysical and survey data
- **Spatial and form perception** to prepare notes, sketches, geological maps and cross sections; may develop specifications for heat treatment of metals and welding; may also design welding fixtures and troubleshoot welding processes and quality problems
- **Objective interest in precision working** to operate and maintain geophysical-survey and well-logging instruments and equipment; to prepare rock, mineral and metal samples; and to perform physical and chemical tests
- **Innovative interest in analyzing** geophysical and survey data to assist engineers and geologists in the evaluation and analysis of petroleum and mineral reservoirs; may assist engineers and metallurgists in specifying material selection, metal treatments and corrosion protection systems; may also assist hydrogeologists in evaluating ground water
- **Directive interest in supervising** oil- and gas-well drilling, well completions and work-overs, welding projects, and research and survey activities of technicians and tradespersons

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H1 Dangerous chemical substances
- H8* Dangerous locations

Discomforts

- D3 Odours

Employment Requirements

Education/Training

6, R

- Geological and mineral technologists usually require completion of a two-to-three year college program in geological technology, petroleum technology, petroleum engineering technology, hydrogeology or ground-water technology, mining technology, mining engineering technology, mineralogy, metallurgical technology or welding technology.

- Geophysics technologists usually require completion of a two-to-three year college program in electronics technology.
- Certification in geological and mineral technology or a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Consulting geology and engineering firms

Educational institutions

Governments

Manufacturing, construction and utility companies

Petroleum and mining companies

Occupational Options

There is limited mobility among occupations in this group.

Mobility may be possible between geophysical technology and electronic technology.

Mobility may be possible between some occupations in this group and related fields of civil engineering technology.

Similar Occupations Classified Elsewhere

Civil Engineering Technologists and Technicians (2231)

Electrical and Electronics Engineering Technologists and Technicians (2241)

Mapping and Related Technologists and Technicians (2255)

Supervisors, Mining and Quarrying (8221)

Supervisors, Oil and Gas Drilling and Service (8222)

Technologists and technicians whose primary duties are to perform chemical laboratory tests (in 2211 *Applied Chemical Technologists and Technicians*)

Remarks

*Environmental Conditions

- For some occupations in this group, Hazards H8 (Dangerous locations) may also apply.

2212.2 Geological and Mineral Technicians

Geological and Mineral Technicians may work independently or provide technical support and services in the fields of oil and gas exploration and production, geophysics, petroleum engineering, geology, mining and mining engineering, mineralogy, extractive and physical metallurgy and metallurgical engineering.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	2	3	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H1, H8*

EDUCATION/TRAINING

6, R

Examples of Job Titles

- Assayer
- Geological Technician
- Log Technician
- Mineralogy Technician
- Petroleum Technician
- Petrology Technician
- Reservoir Engineering Technician
- Rock Mechanics Technician
- Seismic Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to participate in geological, geophysical, geochemical, hydrographic and oceanographic surveys, prospecting field trips, exploratory drilling, well-logging and underground mine-survey programs
- **Verbal and numerical ability** to assist in preparing reports and in preparing, transcribing and analyzing seismic, gravimetric, well-log and other geophysical and survey data
- **Spatial and form perception** to prepare notes and reports, sketches, geological maps and cross sections
- **Objective interest in precision working** to operate and maintain geophysical-survey and well-logging instruments and equipment; to assist in preparing rock, mineral and metal samples; and to assist in conducting physical and chemical laboratory tests
- **Methodical interest in compiling** geophysical and survey data from hydrogeological field and laboratory studies in order to assist with preparation of reports
- **Innovative interest in assisting** to carry out a limited range of other technical functions in support of geology, geophysics and petroleum and mining engineering

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H3 Equipment, machinery, tools
- H8* Dangerous locations

Employment Requirements

Education/Training

- 6, R

- Geological and mineral technicians usually require completion of a one-to-two year college program in a related field.

- Certification in geological and mineral technology or a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers.

- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Consulting engineering firms

Educational institutions

Governments

Manufacturing, construction and utility companies

Petroleum and mining companies

Occupational Options

There is limited mobility among occupations in this group.

Mobility may be possible between geophysical technology and electronic technology.

Mobility may be possible between some occupations in this group and related fields of civil engineering technology.

Similar Occupations Classified Elsewhere

Civil Engineering Technologists and Technicians (2231)

Electrical and Electronics Engineering Technologists and Technicians (2241)

Mapping and Related Technologists and Technicians (2255)

Supervisors, Mining and Quarrying (8221)

Supervisors, Oil and Gas Drilling and Service (8222)

Technologists and technicians whose primary duties are to perform chemical laboratory tests (in 2211 *Applied Chemical Technologists and Technicians*)

Remarks

*Environmental Conditions

- For some occupations in this group, Hazards H8 (Dangerous locations) may also apply.

2213 Meteorological Technicians

Meteorological Technicians observe weather and atmospheric conditions, record and interpret meteorological data, transmit and report on recorded information, and provide meteorological information and advice to the general public, the transportation industry and the media.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	2	3	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5

Examples of Job Titles

- Aerological Technician
- Avalanche Controller
- Climate Data Processor
- Climate Service Specialist
- Climate Service Technician
- Ice Service Specialist
- Meteorological Inspector
- Meteorological Technician
- Officer-in-Charge, Weather Station
- Operations Technician, Weather Station
- Port Meteorological Inspector
- Surface Weather Observer
- Weather Service Specialist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability, spatial and form perception** to observe, record, analyze and interpret weather data
- **Verbal ability** to report on meteorological data and provide weather information to pilots, farmers, shipping industries, news media and other users
- **Clerical perception** to observe, record, chart and transmit atmospheric and weather information including air pressure, temperature, humidity, wind, precipitation, cloud and ultraviolet conditions, and ice conditions in navigable waters
- **Objective interest in operating** equipment to record data and transmit atmospheric and weather information to weather forecast centers; and in maintaining equipment and instruments
- **Methodical interest in compiling** data to maintain climatological databases and participate in the production of maps and charts
- **Innovative interest in speaking** to provide meteorological information and advice to users; in inspecting and servicing weather service installations, and in observing snow conditions and participating in programs to control avalanches in mountainous terrain

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training

5

- Completion of secondary school is required.
- Completion of a meteorological technician program provided by the Atmospheric Environment Service is required.
- Initial training may be up to one year, with subsequent specialized training available.

Workplaces/Employers

Canadian Forces

Atmospheric Environment Service of Environment Canada

Private consulting companies

Provincial governments

Resource and utility companies

Similar Occupations Classified Elsewhere

Meteorologists (2114)

2221.1 Biological Technologists

Biological Technologists may work independently or provide technical support and services to scientists, engineers and other professionals working in the fields of agriculture, resource management, plant and animal biology, microbiology, cell and molecular biology and health sciences.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
2	2	2	4	2	3	3	2	3	
INTERESTS									
Mid									
DATA PEOPLE THINGS (DPT)									
231									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	1	1	3	1	2				
ENVIRONMENTAL CONDITIONS (EC)									
L1, L3, H2									
EDUCATION/TRAINING									
6, R									

Examples of Job Titles
Agricultural Technologist
Biological Laboratory Technologist
Microbiology Quality Control Technologist
Microbiology Technologist
Seed Technologist

Descriptor Profile		
Main Characteristics Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:		
	<ul style="list-style-type: none">■ Numerical ability to carry out quantitative analyses after biological investigations■ Form perception to make visual comparisons when collecting samples of water, soil, plants and animal populations■ Finger dexterity to adjust microscopes and other optical instruments	<ul style="list-style-type: none">■ Methodical interest in precision working with scientific equipment to perform experimental procedures in agriculture, plant breeding, animal husbandry, biology and biomedical research■ Innovative interest in analyzing data; and in conducting field research, surveys and operational programs■ Directive interest in supervising operational programs such as fish hatcheries, greenhouses and livestock production

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H2 Biological agents

Employment Requirements

Education/Training

6, R

- Completion of a two-to-three year college program in a field related to agriculture, biology, microbiology, wildlife or resource management is usually required for employment as a biological technologist.
- Certification with provincial associations is available, but voluntary.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Laboratory and field settings in:

- Biotechnology companies
- Chemical and pharmaceutical companies
- Educational institutions
- Environmental consulting companies
- Governments
- Health institutions
- Manufacturers of food products
- Research institutions
- Resource and utility companies

Occupational Options

There is limited mobility among occupations in this group.

The use of the terms technologist and technician has not become standardized in this field. Some technicians working in support of government and academic research in biology are university graduates.

Similar Occupations Classified Elsewhere

Agricultural and Fish Products Inspectors (2222)

Conservation and Fishery Officers (2224)

Forestry Technologists and Technicians (2223)

Medical Laboratory Technicians (3212)

Medical Laboratory Technologists and Pathologists' Assistants (3211)

Biochemistry technologists and technicians, except medical (in 2211 *Applied Chemical Technologists and Technicians*)

Biomedical engineering technologists (in 2241 *Electrical and Electronics Engineering Technologists and Technicians*)

2221.2 Biological Technicians

Biological Technicians may work independently or provide technical support and services to scientists, engineers and other professionals working in the fields of agriculture, resource management, plant and animal biology, microbiology, cell and molecular biology and health sciences.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	3	3	4	2	3	3	2	3
INTERESTS								
Moi								
DATA PEOPLE THINGS (DPT)								
371								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	1	1	3	1	2			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L3, H2								
EDUCATION/TRAINING								
6, R								

Examples of Job Titles

- Agricultural Technician
- Agrology Technician
- Aquaculture Technician
- Bacteriology Technician
- Botanical Technician
- Fish Hatchery Technician
- Fisheries Technician
- Food Bacteriological Technician
- Plant Breeding Technician
- Wildlife Biology Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to perform a limited range of technical functions in support of agriculture, plant breeding, animal husbandry, biology and biomedical research
- **Verbal and numerical ability** to assist in analyses of data and preparation of reports
- **Form perception** to assist in collecting samples of water, soil, plants and animal populations
- **Finger dexterity** to adjust microscopes and other optical instruments
- **Methodical interest** in assisting biologists to conduct laboratory analyses and biological, microbiological and biochemical tests
- **Objective interest in precision working** with laboratory apparatus to conduct experiments and tests
- **Innovative interest in compiling** information to assist in conducting field research and surveys; and in collecting data and samples

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Hazards

H2 Biological agents

Employment Requirements

Education/Training

6, R

- Completion of a one-to-two year college program in a related field is required for employment as a biological technician.
- Certification with provincial associations is available, but voluntary.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Laboratory and field settings in:

Biotechnology companies

Chemical and pharmaceutical companies

Educational institutions

Environmental consulting companies

Governments

Health institutions

Manufacturers of food products

Research institutions

Resource and utility companies

Occupational Options

There is limited mobility among occupations in this group.

The use of the terms technologist and technician has not become standardized in this field. Some technicians working in support of government and academic research in biology are university graduates.

Similar Occupations Classified Elsewhere

Agricultural and Fish Products Inspectors (2222)

Conservation and Fishery Officers (2224)

Forestry Technologists and Technicians (2223)

Medical Laboratory Technicians (3212)

Medical Laboratory Technologists and Pathologists' Assistants (3211)

Biochemistry technologists and technicians, except medical (in 2211 *Applied Chemical Technologists and Technicians*)

Biomedical engineering technologists (in 2241 *Electrical and Electronics Engineering Technologists and Technicians*)

2222.1 Fish and Fish Products Inspectors

Fish and Fish Products Inspectors ensure that fish products conform to production, storage and transportation standards. Supervisors of fish products inspectors are included in this group.

Profile Summary								
APTITUDES								
G	V	N	S	P	Q	K	F	M
2	3	4	4	2	4	4	4	3
INTERESTS								
Mid								
DATA PEOPLE THINGS (DPT)								
267								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	1	3	0	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L2, L3								
EDUCATION/TRAINING								
4, 6, 7								

Examples of Job Titles

Fish and Fish Products Inspector
Supervisor, Fish Products Inspection

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** ability to inspect fish, fish products and fish handling and processing methods to ensure that they conform to production, storage and transportation standards
- **Verbal ability** to prepare reports

- **Form perception** to recognize defects in fish, fish products and fish handling and processing methods
- **Manual dexterity** to use hand tools, utensils and other equipment to inspect fish and fish products
- **Methodical interest in handling** equipment, measuring devices and Geiger counters to determine parasite infestation in fillets, to determine concentration of chlorine and brine solutions in processing and wash-down waters, and to detect and measure radioactivity in shipments; and in ensuring that regulations are upheld
- **Innovative interest in analyzing** data to perform physical, chemical and bacteriological analyses
- **Directive interest in speaking** to advise industry officials on fish processing methods, plant sanitation, quality of products and registration requirements; to recommend issuance, suspension and withdrawal of registrations; to suggest improvements in the use of by-products such as fish meals, fish oils and fish solubles; and to recommend disposal of fish unfit for human consumption

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L2 Unregulated inside climate
- L3 Outside

Employment Requirements

Education/Training

4, 6, 7

- Completion of secondary school is required.
- A bachelor's degree or college diploma in agriculture, biology or food processing technology or several years of experience in agricultural production or fish processing are required.

- Completion of in-house training courses is required.

Workplaces/Employers

Food processing companies

Government departments and agencies

Occupational Options

Progression to managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)

Fish graders and meat graders who perform routine quality-control duties or tally landed fish (in 9465 *Testers and Graders, Food and Beverage Processing*)

2222.2 Fruit and Vegetable Inspectors

Fruit and Vegetable Inspectors ensure that agricultural products conform to production, storage and transportation standards. Supervisors of agricultural products inspectors are included in this group.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	3	4	4	2	4	4	4	3

INTERESTS
Mid

DATA PEOPLE THINGS (DPT)
267

PHYSICAL ACTIVITIES (PA)					
V	C	H	B	L	S
2	0	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)
L1, L2, L3

EDUCATION/TRAINING
4, 6, 7

Examples of Job Titles

Agricultural Products Inspector
Fruit and Vegetables Inspector

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to inspect agricultural products to ensure that they conform to production, storage and transportation standards
- **Verbal ability** to prepare reports on crop production and market conditions

- **Form perception** to recognize defects in fresh and frozen fruits and vegetables
- **Manual dexterity** to use hand tools, utensils and other equipment to inspect fresh and frozen fruits and vegetables
- **Methodical interest in handling** and inspecting fruits and vegetables during processing to establish size, quality and grade and to prepare specimens for examination
- **Innovative interest in analyzing** data to examine specimens to detect and identify diseases, insects and other damage
- **Directive interest in speaking** with growers, farmers and shippers regarding methods of culture, registration requirements, eradication of diseases and regulations pertaining to grading, packing and loading of products; and in reporting diseases to governmental authorities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L2 Unregulated inside climate
- L3 Outside

Employment Requirements

Education/Training

4, 6, 7

- Completion of secondary school is required.
- A bachelor's degree or college diploma in agriculture, biology or food processing technology or several years of experience in agricultural production or fish processing are required.
- Completion of in-house training courses is required.

Workplaces/Employers

Food processing companies

Government departments and agencies

Occupational Options

Progression to managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)

Fish graders and meat graders who perform routine quality-control duties or tally landed fish (in 9465 *Testers and Graders, Food and Beverage Processing*).

2222.3 Grain Inspectors

Grain Inspectors ensure that grain products conform to production, storage and transportation standards. Supervisors of agricultural products inspectors are included in this group.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	4	4	2	4	4	4	3

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

267

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L2, L3

EDUCATION/TRAINING

4, 6, 7

Examples of Job Titles

Agricultural Products Inspector
Grain Inspector

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to inspect and grade grain and grain products at terminal elevators to ensure they conform to production, storage and transportation standards
- **Verbal ability** to prepare reports on crop production and market conditions
- **Form perception** to reject grain of substandard quality
- **Manual dexterity** to use hand tools, utensils and other equipment to separate, weigh and grade grain samples
- **Methodical interest in handling** grain and equipment to separate, weigh and grade grain; and in monitoring the fumigation of infested grain and of storage, handling and transportation equipment to ensure that sanitary procedures are followed
- **Innovative interest in analyzing** data to examine grain samples to detect and identify diseases, insects and other damage
- **Directive interest in speaking** to growers, farmers and shippers regarding methods of culture, registration requirements, eradication of diseases and regulations pertaining to grading, packing and loading of products; and in reporting diseases to governmental authorities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L2 Unregulated inside climate

L3 Outside

Employment Requirements

Education/Training

4, 6, 7

- Completion of secondary school is required.
- A bachelor's degree or college diploma in agriculture, biology or food processing technology or several years of experience in agricultural production or fish processing are required.

- Completion of in-house training courses is required.

Workplaces/Employers

Food processing companies

Government departments and agencies

Occupational Options

Progression to managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)

Fish graders and meat graders who perform routine quality-control duties or tally landed fish (in 9465 *Testers and Graders, Food and Beverage Processing*)

2222.4 Meat Inspectors

Meat Inspectors ensure that meat products conform to production, storage and transportation standards. Supervisors of agricultural and fish products inspectors are included in this group.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
2	3	4	4	2	4	4	4	3	
INTERESTS									
Mid									
DATA PEOPLE THINGS (DPT)									
267									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	1	3	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1, L2, L3									
EDUCATION/TRAINING									
4, 6, 7									

Examples of Job Titles
Agricultural Products Inspector
Dairy Products Inspector
Livestock Inspector
Meat Inspector
Poultry Inspector
Supervisor, Agricultural Products Inspection

Descriptor Profile		
<div>Main Characteristics</div> <p>Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:</p> <ul style="list-style-type: none">■ General learning ability to inspect meat products to ensure that they conform to production, storage and transportation standards■ Verbal ability to prepare reports	<ul style="list-style-type: none">■ Form perception to recognize diseased or substandard animal products■ Manual dexterity to use test equipment when inspecting carcasses to ensure they are fit for human consumption■ Methodical interest in handling meat products to monitor the operations and sanitary conditions of slaughtering and meat processing plants, to grade poultry and egg samples, to test milk and to perform tests of other dairy products to determine their suitability for marketing	
	<ul style="list-style-type: none">■ Innovative interest in analyzing information to investigate cases of animal diseases communicable to man in order to prevent and contain their spread■ Directive interest in speaking to livestock owners on economical aspects of disease eradication, and to inform producers and the general public on health implications of diseases transmissible from animals to humans	

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L2 Unregulated inside climate

L3 Outside

Employment Requirements

Education/Training

4, 6, 7

- Completion of secondary school is required.
- A bachelor's degree or college diploma in agriculture, biology or food processing technology or several years of experience in agricultural production or fish processing are required.

- Completion of in-house training courses is required.

Workplaces/Employers

Food processing companies

Government departments and agencies

Occupational Options

Progression to managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)

Fish graders and meat graders who perform routine quality-control duties or tally landed fish (in 9465 *Testers and Graders, Food and Beverage Processing*)

2222.5 Plant Protection Inspectors

Plant Protection Inspectors ensure that agricultural products conform to production, storage and transportation standards. Supervisors of agricultural products inspectors are included in this group.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	3	4	4	2	4	4	4	3
INTERESTS								
Mid								
DATA PEOPLE THINGS (DPT)								
267								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	0	1	3	0	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L2, L3								
EDUCATION/TRAINING								
4, 6, 7								

Examples of Job Titles

Crop Certification Inspector
Plant Protection Inspector

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to inspect seeds, plants and plant products to ensure that they conform to production, storage and transportation standards
- **Verbal ability** to prepare inspection reports
- **Form perception** to examine specimens to detect and identify diseases, insects and other damage
- **Methodical interest in handling** seeds, plants and plant products for inspection, and in overseeing the fumigation of imported plants and about-to-be-exported plants and plant products
- **Innovative interest in analyzing** information on agricultural products to determine genetic purity, the presence of destructive insects, and disease and damage
- **Directive interest in speaking** to growers, farmers and shippers regarding methods of culture, registration requirements, eradication of disease and regulations pertaining to grading, packing and loading of agricultural products; and in overseeing the fumigation, quarantine, treatment and destruction of plant and plant products

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L2 Unregulated inside climate

L3 Outside

Employment Requirements

Education/Training

4, 6, 7

- Completion of secondary school is required.
- A bachelor's degree or college diploma in agriculture, biology or food processing technology or several years of experience in agricultural production or fish processing are required.
- Completion of in-house training courses is required.

Workplaces/Employers

Food processing companies

Government departments and agencies

Occupational Options

Progression to managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)

Fish graders and meat graders who perform routine quality-control duties or tally landed fish (in 9465 *Testers and Graders, Food and Beverage Processing*)

2223 Forestry Technologists and Technicians

Forestry Technologists and Technicians may work independently or perform technical and supervisory functions in support of forestry research, forest management, forest harvesting and forest resource conservation and protection.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
2	3	3	3	3	3	3	3	3	
INTERESTS									
DMI									
DATA PEOPLE THINGS (DPT)									
331									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
3	1	2	3	1	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1, L3, H8, D1									
EDUCATION/TRAINING									
5, 6, R									

Examples of Job Titles
Conservation Technician - Forestry
Cruising Technician - Forestry
Enforcement Officer - Forestry
Extension Ranger - Forestry
Fire Suppression Officer - Forestry
Forest Fire Technician
Forest Survey Technician
Forest Technician
Forestry Technician
Forestry Technologist
Resource Officer, Forest Inventory
Resource Technician - Forestry
Scaler Technician - Logging
Scaling Co-ordinator - Logging
Silviculture Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct, supervise, and participate in, forest inventory cruises, surveys and field measurements following accepted scientific and operational procedures
- **Verbal ability** to provide forestry education, advice and recommendations to woodlot owners, community organizations and the general public
- **Clerical perception** to take measurements and maintain computer databases
- **Spatial perception** to assist and perform technical functions in the preparation of forest management and harvest plans using photogrammetric and mapping techniques and computerized information systems
- **Form perception** to inspect and assess insect and disease damage
- **Motor co-ordination and finger dexterity** to make adjustments to instruments and to use computerized information systems
- **Manual dexterity** to perform technical functions in silviculture operations involving site preparation, planting and tending of tree crops
- **Directive interest** in supervising the construction of access routes, forest roads and forest tree-nursery operations; and in implementing and supervising technical functions in silviculture and forest harvesting operations and in co-ordinating activities such as timber scaling, forest fire suppression, disease and insect control and pre-commercial thinning of forest stands
- **Methodical interest** in compiling information to monitor activities of logging companies and contractors, to enforce regulations, such as those concerning environmental protection, resource use, fire safety and accident prevention, and to develop and maintain computer databases

- Innovative interest in precision working to provide technical support to forestry research programs in areas such as tree improvement, seed orchard operations, insect and disease surveys and experimental forestry and forest engineering research

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H8 Dangerous locations

Discomforts

- D1 Noise

Employment Requirements

Education/Training

5, 6, R

- Completion of a one-to-three year college program in forestry technology, a renewable resource program or a forest ranger program is usually required.
- Certification in, or registration with, a provincial association as a forestry technologist or technician may be required.
- Certification or licensing as a scaler is required for some positions.
- In Quebec, membership in the professional corporation for technologists in the applied sciences is mandatory.

Workplaces/Employers

Consulting firms and other industries

Federal government

Forest industry sector

Provincial governments

Self-employment

Occupational Options

Mobility may be possible to occupations in natural resource and wildlife management, supervision and parks management occupations.

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Conservation and Fishery Officers (2224)

Forestry technologists and technicians working as supervisors of woodlands operations (in 8211 *Supervisors, Logging and Forestry*)

Foresters and forest engineers (in 2122 *Forestry Professionals*)

2224

Conservation and Fishery Officers

Conservation and Fishery Officers enforce federal and provincial regulations for the protection of fish, wildlife and other natural resources, and collect and relay information on resource management.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	4	4	4
INTERESTS								
DMS								
DATA PEOPLE THINGS (DPT)								
363								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
4	1	2	3	2	2			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L3, L4, H1*, H2*, H8*								
EDUCATION/TRAINING								
6, R								

Examples of Job Titles

- Conservation Officer
- Fish and Wildlife Officer
- Fishery Officer
- Forest Ranger, Wildlife Management
- Game Officer
- Game Warden
- Natural Resource Officer
- Park Ranger

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to enforce and generate public awareness of fish and wildlife conservation and regulations, and to perform resource protection duties

- **Verbal ability** to prepare briefs and present evidence in court
- **Numerical ability and clerical perception** to issue licences, export documents and special permits, to collect royalties assessed on fish, wildlife and timber resources, and to perform resource protection duties
- **Directive interest in driving - operating** to conduct patrols by truck, aircraft, boat or on foot; and in implementing and supervising approved techniques in preventing and overcoming damage caused by wildlife
- **Methodical interest in compiling** information when investigating complaints and arresting violators; and in gathering resource data by making inventories of fish, collecting water samples and assisting biologists in scientific research
- **Social interest in speaking** with the public to generate awareness of fish and wildlife conservation and regulations; and in supervising or providing firearms-safety training courses and trapper education courses

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside
- L4 In a vehicle or cab

Hazards

- H1*Dangerous chemical substances
- H2*Biological agents
- H8*Dangerous locations

Employment Requirements

Education/Training
6, R

- Completion of a one-to-three year college program in renewable resources management is required.
- On-the-job training and courses related to law enforcement and resource management are provided.
- A class 5 driver's licence, pesticide applicator's licence and explosives' licence may be required.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory for some occupations in this group.

Workplaces/Employers

Federal government departments

Provincial government departments

Occupational Options

Progression to senior and supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Fish inspectors (in 2222 Agricultural and Fish Products Inspectors)

Remarks

*Environmental Conditions

- For some occupations in this group, Hazards H1 (Dangerous chemical substances), H2 (Biological agents) or H8 (Dangerous locations) may apply.

2225.1 Arborists and Tree Service Technicians

Arborists and Tree Service Technicians examine and treat injured and diseased trees and shrubs.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	3	3	3	3	4	4	3	3

INTERESTS								
OMD								

DATA PEOPLE THINGS (DPT)								
284								

PHYSICAL ACTIVITIES (PA)					
V	C	H	B	L	S
3	1	1	4	2	3

ENVIRONMENTAL CONDITIONS (EC)								
L1, L3, H1, H3, D3								

EDUCATION2/TRAINING								
6, 7, R								

Examples of Job Titles

Arborist
Tree Service Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to examine trees and shrubs to diagnose problems and diseases
- **Spatial perception** to shape trees to desired contours, and to avoid overhead wires and other objects when raising ladders or hydraulic platforms

- **Form perception** to detect injury and disease in trees and shrubs
- **Finger and manual dexterity** to use tools and equipment such as chainsaws, pruning tools and spray and dusting equipment
- **Objective interest in operating** equipment to apply treatments such as pruning, spraying, repairing damaged areas and injecting treatment solutions
- **Methodical interest in analyzing** information to determine appropriate treatment methods
- **Directive interest** in advising clients on issues related to the diagnosis and treatment of injured and diseased trees and shrubs

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

2 Multiple limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Hazards

H1 Dangerous chemical substances

H3 Equipment, machinery, tools

Discomforts

D3 Odours

Employment Requirements

Education/Training

6, 7, R

- Completion of a university or college program in agronomy, arboriculture, forestry, horticulture, landscaping, landscape design, landscape technology or silviculture is usually required.
- A provincial licence to apply chemical fertilizers, fungicides, herbicides and pesticides may be required.

Workplaces/Employers

Golf courses

Landscape designers and contractors

Lawn service and tree care establishments

Municipal, provincial and national parks

Nurseries and greenhouses

Self-employment

Similar Occupations Classified Elsewhere

*Biological Technologists and Technicians (2221)**Forestry Technologists and Technicians (2223)**Landscape Architects (2152)**Landscaping and Grounds Maintenance Contractors and Managers (8255)**Nursery and Greenhouse Operators and Managers (8254)**Nursery and Greenhouse Workers (8432)**Supervisors, Landscape and Horticulture (8256)**Botanists (in 2121 Biologists and Related Scientists)*

2225.2 Golf Course Superintendents

Golf Course Superintendents supervise and co-ordinate activities of workers engaged in maintaining grounds, greens and turf of golf courses.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	4	4	4

INTERESTS

OMD

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	4	2	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H1, D3

EDUCATION/TRAINING

4, 6, 7, R

Examples of Job Titles

Golf Course Superintendent

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to direct crews who maintain the health and appearance of golf courses and their surrounding landscapes
- **Verbal and numerical ability** to talk to club owners on work projects, and to prepare annual budgets for owners' approval
- **Spatial and form perception** to select sites for flags, trees, shrubs and plants
- **Motor co-ordination and manual dexterity** to plant and move trees
- **Objective interest** in applying fertilizers, fungicides, herbicides and pesticides, and in assisting workers in the maintenance and repair of mechanical equipment
- **Methodical interest** in co-ordinating information from club authorities to plan and review work projects and priorities; and in arranging for soil tests and purchases of equipment and supplies
- **Directive interest** in supervising work crews who mix and prepare spray and dust mixtures, and spray and dust golf courses and surrounding landscapes

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H1 Dangerous chemical substances

Discomforts

- D3 Odours

Employment Requirements

Education/Training

4, 6, 7, R

- Completion of a university or college program in agronomy, arboriculture, forestry, horticulture, landscaping, landscape design, landscape technology or silviculture is usually required.
- Experience as a landscape and grounds maintenance labourer may be required for golf course superintendents.
- A provincial licence to apply chemical fertilizers, fungicides, herbicides and pesticides may be required.

Workplaces/Employers

Golf courses

Self-employment

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Landscape Architects (2152)

Landscaping and Grounds Maintenance Contractors and Managers (8255)

Nursery and Greenhouse Operators and Managers (8254)

Nursery and Greenhouse Workers (8432)

Supervisors, Landscape and Horticulture (8256)

Botanists (in 2121 Biologists and Related Scientists)

2225.3 Horticulturalists

Horticulturalists conduct experiments and studies of fruits and flowers to develop and improve plant varieties and production methods.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
2	3	3	3	3	4	4	3	3	
INTERESTS									
OMD									
DATA PEOPLE THINGS (DPT)									
131									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
3	1	1	4	2	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1, L3, H1*, D3*									
EDUCATION/TRAINING									
5, 6, 7, R									

- Examples of Job Titles
- Horticultural Technician

Horticulture Specialist

Horticulturist

Hydroponics Technician

Silviculturist

Descriptor Profile

- Main Characteristics
- Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

■ General learning ability to plan and co-ordinate the growth and use of plants for landscaping, ornamental uses and other purposes

■ Verbal ability to advise clients on issues related to horticulture; may provide technical advice regarding plant growth as it affects highway construction and maintenance

■ Form perception to observe the characteristics of fruits and flowers in order to develop and improve plant varieties, production methods and breeding techniques; to determine the effects of environmental conditions on plant propagation and growth; and to improve the quality and yield of harvests

■ Finger and manual dexterity to apply breeding techniques, such as bud and scion graft and cross-pollination to develop new strains, and to introduce new variations of colour, size, taste, texture and other characteristics to particular plants

■ Objective interest in precision working with enriched seed, fertilizers, plant hormones and different planting, spraying, cultivation, rotation, drainage and irrigation methods to achieve optimum viability, strength and growth

■ Methodical interest in co-ordinating data to conduct studies, analyze production problems and develop disinfecting, refrigeration, cauterization, shipping tubes, strong boxes and other equipment and methods to reduce damage, spoilage and waste; to increase storage life, transportation range and seasons of availability; and to classify plants according to their ornamental, medicinal, nutritional and other values

- Directive interest in supervising the work of technologists and technicians; may supervise landscape operations

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H1* Dangerous chemical substances

Discomforts

- D3* Odours

Employment Requirements

Education/Training

- 5, 6, 7, R

- Completion of a university or college program in agronomy, arboriculture, forestry, horticulture, landscaping, landscape design, landscape technology or silviculture is usually required.
- Apprenticeship programs in horticulture are available in Ontario and British Columbia.
- A provincial licence to apply chemical fertilizers, fungicides, herbicides and pesticides may be required.

Workplaces/Employers

Landscape designers and contractors

Lawn service and tree care establishments

Municipal, provincial and national parks

Nurseries and greenhouses

Self-employment

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Landscape Architects (2152)

Landscaping and Grounds Maintenance Contractors and Managers (8255)

Nursery and Greenhouse Operators and Managers (8254)

Nursery and Greenhouse Workers (8432)

Supervisors, Landscape and Horticulture (8256)

Botanists (in 2121 Biologists and Related Scientists)

Remarks

* Environmental Conditions

- For some occupations in this group, Hazards H1 (Dangerous chemical substances) and Discomforts D3 (Odours) may apply.

2225.4 Landscape Designers and Landscape Architectural Technicians and Technologists

Landscape Designers and Landscape Architectural Technicians and Technologists survey and assess landscapes and assist in designing landscaped environments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	3	4	3	3	3

INTERESTS

OMD

DATA PEOPLE THINGS (DPT)

271

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Landscape Architectural Technician
Landscape Specialist
Landscape Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to survey and assess sites, and to understand and apply the principles and practices of designing landscaped environments

- **Spatial perception** to prepare drawings and sketches and to build models of landscape designs
- **Motor co-ordination and finger dexterity** to make measurements using small objects such as pencils, drawing pens and other drafting instruments
- **Objective interest in precision working** to survey sites and to prepare drawings and sketches
- **Methodical interest in analyzing** information to assess site data
- **Directive interest in assisting** landscape architects in designing landscaped environments

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

2 Multiple limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

6, 7

- Completion of a university or college program in agronomy, arboriculture, forestry, horticulture, landscaping, landscape design, landscape technology or silviculture is usually required.

Workplaces/Employers

Landscape designers and contractors

Lawn service and tree care establishments

Municipal, provincial and national parks

Nurseries and greenhouses

Self-employment

Similar Occupations Classified Elsewhere

*Biological Technologists and Technicians (2221)**Forestry Technologists and Technicians (2223)**Landscape Architects (2152)**Landscaping and Grounds Maintenance Contractors and Managers (8255)**Nursery and Greenhouse Operators and Managers (8254)**Nursery and Greenhouse Workers (8432)**Supervisors, Landscape and Horticulture (8256)**Botanists (in 2121 Biologists and Related Scientists)*

2225.5 Landscape Gardeners

Landscape Gardeners assist in landscaping grounds around residential, commercial and industrial establishments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	4	3

INTERESTS

OMD

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	4	2	3

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H1, H3, D3

EDUCATION/TRAINING

4, 5, 6, 7, R

Examples of Job Titles

Landscape Gardener

Landscape Specialist

Landscape Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plant and maintain private and public lawns and gardens

- **Motor co-ordination and manual dexterity** to load and unload flagstones, flowers, peat moss and other supplies
- **Objective interest in operating** mechanical equipment and using gardening tools to prepare soil, seed lawns, dig holes, trim shrubs and hedges, and maintain lawns and gardens

- **Methodical interest in copying** information to plant flowers, bulbs, shrubs and hedges according to prepared plans
- **Directive interest** in mixing chemical solutions to spray plants for weed and insect control, and in preparing work reports

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H1 Dangerous chemical substances
- H3 Equipment, machinery, tools

Discomforts

- D3 Odours

Employment Requirements

Education/Training

- 4, 5, 6, 7, R

- Completion of a university or college program in agronomy, arboriculture, forestry, horticulture, landscaping, landscape design, landscape technology or silviculture is usually required.
- Experience as a landscape and grounds maintenance labourer may be required for landscape gardeners.
- Apprenticeship programs in landscape gardening are available in Ontario and Alberta.
- A provincial licence to apply chemical fertilizers, fungicides, herbicides and pesticides may be required.

Workplaces/Employers

Golf courses

Landscape designers and contractors

Lawn service and tree care establishments

Municipal, provincial and national parks

Nurseries and greenhouses

Self-employment

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Landscape Architects (2152)

Landscaping and Grounds Maintenance Contractors and Managers (8255)

Nursery and Greenhouse Operators and Managers (8254)

Nursery and Greenhouse Workers (8432)

Supervisors, Landscape and Horticulture (8256)

Botanists (in 2121 Biologists and Related Scientists)

2225.6 Landscapers

Landscapers plan and construct landscaped environments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	3	4	3	4	3

INTERESTS

OMD

DATA PEOPLE THINGS (DPT)

384

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	4	2	3

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H1, H3, D3

EDUCATION/TRAINING

4, 6, 7, R

Examples of Job Titles

Landscaper

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the principles and practices of planning and constructing landscaped environments
- **Verbal ability** to advise clients on issues related to landscaped environments
- **Spatial perception** to judge distances and relative positions when planning landscaped environments
- **Manual dexterity** to use equipment to construct landscaped environments and plant trees, shrubs and other plants
- **Objective interest in operating** equipment such as mowers, spreaders and sprayers
- **Methodical interest in compiling** information to survey sites
- **Directive interest** in planning environments that may include trees, shrubberies, lawns, fences, decks, patios and other structures

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H1 Dangerous chemical substances
- H3 Equipment, machinery, tools

Discomforts

- D3 Odours

Employment Requirements

Education/Training

- 4, 6, 7, R

- Completion of a university or college program in agronomy, arboriculture, forestry, horticulture, landscaping, landscape design, landscape technology or silviculture is usually required.
- Experience as a landscape and grounds maintenance labourer may be required for landscapers.
- A provincial licence to apply chemical fertilizers, fungicides, herbicides and pesticides may be required.

Workplaces/Employers

Golf courses

Landscape designers and contractors

Lawn service and tree care establishments

Municipal, provincial and national parks

Nurseries and greenhouses

Self-employment

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Landscape Architects (2152)

Landscaping and Grounds Maintenance Contractors and Managers (8255)

Nursery and Greenhouse Operators and Managers (8254)

Nursery and Greenhouse Workers (8432)

Supervisors, Landscape and Horticulture (8256)

Botanists (in 2121 Biologists and Related Scientists)

2225.7 Lawn Care Specialists

Lawn Care Specialists apply products to customers’ lawns and promote lawn care services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	4	3

INTERESTS

OMD

DATA PEOPLE THINGS (DPT)

564

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	4	2	4

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H1, H3, D3

EDUCATION/TRAINING

6, 7, R

Examples of Job Titles

Lawn Care Specialist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess the health of lawns and determine required lawn applications; may specialize and care for trees and shrubs
- **Verbal ability** to review route packages and read customers’ service agreements
- **Motor co-ordination and manual dexterity** to use broadcast spreaders, pressurized hoses from truck-mounted tanks and hand and backpack spraying equipment
- **Objective interest** in operating equipment to apply fertilizer, pesticides and other lawn care products
- **Methodical interest** in copying information to complete billing invoices and update service agreements
- **Directive interest** in speaking with home-owners and business clients to describe the purpose of service calls, to provide tips concerning mowing and watering practices, weed and insect control and other cultural practices; and to call on neighbouring home-owners to solicit service agreements

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 4 Heavy

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H1 Dangerous chemical substances
- H3 Equipment, machinery, tools

Discomforts

- D3 Odours

Employment Requirements

Education/Training

6, 7, R

- Completion of a university or college program in agronomy, arboriculture, forestry, horticulture, landscaping, landscape design, landscape technology or silviculture is usually required.
- A provincial licence to apply chemical fertilizers, fungicides, herbicides and pesticides may be required.

Workplaces/Employers

Golf courses

Landscape designers and contractors

Lawn service and tree care establishments

Municipal, provincial and national parks

Nurseries and greenhouses

Self-employment

Similar Occupations Classified Elsewhere

Biological Technologists and Technicians (2221)

Forestry Technologists and Technicians (2223)

Landscape Architects (2152)

Landscaping and Grounds Maintenance Contractors and Managers (8255)

Nursery and Greenhouse Operators and Managers (8254)

Nursery and Greenhouse Workers (8432)

Supervisors, Landscape and Horticulture (8256)

Botanists (in 2121 Biologists and Related Scientists)

2231.1 Civil Engineering Technologists

Civil Engineering Technologists may work independently or provide technical support and services in civil engineering fields such as structural engineering, municipal engineering, construction design and supervision, highways and transportation engineering, water resources engineering and geotechnical engineering.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	2	3	3	3	3	3

INTERESTS

MId

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

6, R

Examples of Job Titles

Civil Engineering Technologist
Construction Technologist
Foundation Technologist
Municipal Engineering Assistant
Soil Technologist, Civil Engineering
Specification Writer, Construction
Structural Design Technologist
Structural Investigator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct field surveys, inspections and technical investigations of topography, soils, drainage and water supply systems, road and highway systems, and buildings and structures
- **Verbal ability** to prepare project schedules and reports
- **Numerical ability** to prepare cost and material estimates
- **Spatial perception** to prepare construction specifications, and to interpret and prepare engineering designs and drawings
- **Methodical interest** in analyzing information to inspect and test construction materials; and in providing data for engineering projects
- **Innovative interest in precision working** to develop designs and drawings from preliminary concepts and sketches
- **Directive interest in supervising** field surveys, inspections and technical investigations; may supervise, monitor and inspect construction projects

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

6, R

- Completion of a two- or three-year college program in civil engineering technology or a closely related discipline is usually required for civil engineering technologists.

- Certification in civil engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.

- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Construction companies

Consulting engineering companies

Governments

Public works departments

Transportation departments

Occupational Options

There is mobility to related occupations such as drafting technologists and technicians and construction inspectors and estimators.

Progression to construction supervisors or construction managers is possible with experience.

Similar Occupations Classified Elsewhere

Architectural Technologists and Technicians (2251)

Construction Estimators (2234)

Construction Inspectors (2264)

Construction Managers (0711)

Drafting Technologists and Technicians (2253)

Survey Technologists and Technicians (2254)

Remarks

In data provided by Statistics Canada, groups 2231 and 2234 are combined to form 2230 *Civil Engineering Technologists and Technicians and Construction Estimators*.

2231.2 Civil Engineering Technicians

Civil Engineering Technicians may work independently or provide technical support and services in civil engineering fields such as structural engineering, municipal engineering, construction design and supervision, highways and transportation engineering, water resources engineering and geotechnical engineering.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	3	3	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

6, R

Examples of Job Titles

- Bridge Design Technician
- Building Materials Technician
- Civil Engineering Technician
- Highway Technician
- Municipal Engineering Assistant
- Specification Writer, Construction
- Structural Investigator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to participate in field surveys, inspections and technical investigations of topography, soils, drainage and water supply systems, road and highway systems, and buildings and structures
- **Spatial perception** to prepare drawings and specifications
- **Objective interest in precision working** to perform technical functions in support of civil engineering activities
- **Methodical interest in compiling** information to provide data for projects
- **Innovative interest in assisting** in the development of specifications and drawings

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
3 Sitting, standing, walking

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate
L3 Outside

Employment Requirements

Education/Training
6, R

- Completion of a two- or three-year college program in civil engineering technology or a closely related discipline is usually required for civil engineering technologists.
- Certification in civil engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Construction companies
Consulting engineering companies
Governments
Public works departments
Transportation departments

Occupational Options

There is mobility to related occupations such as drafting technologists and technicians and construction inspectors and estimators.

Progression to construction supervisors or construction managers is possible with experience.

Similar Occupations Classified Elsewhere

Architectural Technologists and Technicians (2251)

Construction Estimators (2234)

Construction Inspectors (2264)

Construction Managers (0711)

Drafting Technologists and Technicians (2253)

Survey Technologists and Technicians (2254)

Remarks

In data provided by Statistics Canada, groups 2231 and 2234 are combined to form 2230 *Civil Engineering Technologists and Technicians and Construction Estimators*.

2232.1 Mechanical Engineering Technologists

Mechanical Engineering Technologists may work independently or provide technical support and services in mechanical engineering fields such as the design, development, maintenance and testing of machines, components, tools, heating and ventilating systems, power generation and power conversion plants, and manufacturing plants and equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	2	2	3	3	3	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

- Aeronautical Technologist
- Heating Designer
- HVAC Technologist
- Machine Designer
- Marine Engineering Technologist
- Mechanical Engineering Technologist
- Mechanical Technologist
- Mould Designer
- Tool and Die Designer
- Tool Designer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct tests on machines, components and materials to determine their performance, strength, response to stress and other characteristics
- **Verbal ability** to prepare project schedules and reports, and to prepare contract and tender documents

- **Numerical ability** to prepare cost and material estimates
- **Spatial perception** to prepare designs, drawings and specifications for machines and components, power transmission systems, process piping and heating, ventilating and air-conditioning systems
- **Form perception** to inspect mechanical installations and construction
- **Objective interest in precision working** with instruments to design moulds, tools, dies, jigs and fixtures for use in manufacturing processes
- **Innovative interest in analyzing** results of tests conducted on machines, components and materials to determine their performance, strength, response to stress and other characteristics
- **Methodical interest in supervising** and monitoring mechanical installations, construction projects, maintenance programs and operations of mechanical plants; and in preparing maintenance standards and schedules of mechanical plants

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training
6, R

- Completion of a two- or three-year college program in mechanical engineering technology is usually required for mechanical engineering technologists.

- Certification in mechanical engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.

- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Consulting engineering companies
Government departments
Institutions
Manufacturing and processing companies

Occupational Options

There is mobility to other related occupations such as technical sales or drafting technologists and technicians.

Progression to mechanical construction supervisors, manufacturing or operations managers is possible with experience.

Similar Occupations Classified Elsewhere

Contractors and Supervisors, Trades and Related Workers (721)

Drafting Technologists and Technicians (2253)

Industrial Designers (2252)

Managers in Manufacturing and Utilities (091)

Technical Sales Specialists, Wholesale Trade (6221)

2232.2 Mechanical Engineering Technicians

Mechanical Engineering Technicians may work independently or provide technical support and services in mechanical engineering fields such as the design, development, maintenance and testing of machines, components, tools, heating and ventilating systems, power generation and power conversion plants, and manufacturing plants and equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	3	3	3	3	3

INTERESTS

MOi

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

6, R

Examples of Job Titles

- Heating Designer
- Machine Designer
- Mechanical Engineering Technician
- Mould Designer
- Thermal-Station Technician
- Tool and Die Designer
- Tool Designer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to carry out a limited range of mechanical tests of machines, components and materials
- **Spatial perception** to assist in preparing designs, drawings and specifications
- **Methodical interest in compiling** information to carry out a limited range of analyses of machines, components and materials
- **Objective interest in precision working** to assist in the design of moulds, tools, dies, jigs and fixtures for use in manufacturing processes; and in participating in the installation, repair and maintenance of machinery and equipment
- **Innovative interest in assisting** in the inspection of mechanical installations and construction projects

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not significant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

- 6, R

- Completion of a one- or two-year college program in mechanical engineering technology is usually required for mechanical engineering technicians.
- Certification in mechanical engineering technology or in a related fields is available through provincial associations of engineering/applied science technologists and technician and may be required for some positions.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Consulting engineering companies

Government departments

Institutions

Manufacturing and processing companies

Occupational Options

There is mobility to other related occupations such as technical sales or drafting technologists and technicians.

Progression to mechanical construction supervisors, manufacturing or operations managers is possible with experience.

Similar Occupations Classified Elsewhere

Contractors and Supervisors, Trades and Related Workers (721)

Drafting Technologists and Technicians (2253)

Industrial Designers (2252)

Managers in Manufacturing and Utilities (091)

Technical Sales Specialists, Wholesale Trade (6221)

2233.1 Industrial Engineering and Manufacturing Technologists

Industrial Engineering and Manufacturing Technologists may work independently or provide technical support and services in the development of production methods, facilities and systems and the planning, estimating, measuring and scheduling of work.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	2	3	3	4	4	3

INTERESTS

IMd

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

- Industrial Engineering Technologist
- Loss Prevention Technologist
- Manufacturing Technologist
- Numerical Control Tool Programmer
- Pulp and Paper Manufacturing Technologist
- Quality Assurance Technologist
- Textile Technologist
- Time Study Analyst

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop and conduct production, inventory and quality assurance programs in manufacturing and other industries; may specialize in the development of production processes, quality assurance programs, or plans and schedules in particular industrial areas such as metal fabrication, plastics, pulp and paper or textile manufacturing
- **Verbal ability** to understand scientific and technical terms to develop and carry out work study and related programs, and to prepare schedules and reports
- **Numerical ability** to prepare cost estimates
- **Spatial perception** to design plant layouts and production facilities
- **Innovative interest in precision working** to develop computer applications for robots, numerical control machines and manufacturing processes and operations; and in developing work study and related programs
- **Methodical interest in analyzing** information to develop and conduct safety training programs
- **Directive interest in supervising** to develop and carry out industrial health, safety and fire prevention plans and programs

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, R

- Completion of a two- or three-year college program or equivalent in industrial engineering technology, pulp and paper technology, plastics technology, textile technology, manufacturing technology or in a related discipline is usually required for industrial engineering or manufacturing technologists.

- Certification in industrial engineering or manufacturing technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.

- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Government departments

Manufacturing and insurance companies

Occupational Options

There is mobility to related fields such as technical sales.

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Technical Sales Specialists, Wholesale Trade (6221)

Textile technologists/technicians working in support of chemical dyeing and finishing and quality control technologists/technicians in food or chemical industries or laboratories (in 2211 *Applied Chemical Technologists and Technicians*)

2233.2 Industrial Engineering and Manufacturing Technicians

Industrial Engineering and Manufacturing Technicians may work independently or provide technical support and services in the development of production methods, facilities and systems and the planning, estimating, measuring and scheduling of work.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	3	3	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Industrial Engineering Technician
Manufacturing Technician
Planning Technician
Plastics Manufacturing Technician
Scheduling Technician,
Manufacturing

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply engineering principles involved in the development of production methods, facilities and systems in support of industrial and manufacturing engineers
- **Verbal and numerical ability** to assist in the development of estimates, schedules, specifications and reports
- **Spatial perception** to assist in the design of plant layouts
- **Objective interest in precision working** to conduct work measurement and other studies; and in setting machine and equipment controls
- **Methodical interest in compiling** operational or experimental data; and in collecting and analyzing data and samples in support of quality assurance and industrial health and safety programs
- **Innovative interest in assisting** engineers to develop manufacturing and processing procedures and variables, and to oversee production and inspect processes

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training
6, R

- Completion of a one- or two-year college program in industrial engineering technology or in a related discipline is usually required for industrial engineering or manufacturing technicians.
- Certification in industrial engineering or manufacturing technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Government departments

Manufacturing and insurance companies

Occupational Options

There is mobility to related fields such as technical sales.

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

*Technical Sales Specialists, Wholesale Trade (6221)*Textile technologists/technicians working in support of chemical dyeing and finishing and quality control technologists/technicians in food or chemical industries or laboratories (in 2211 *Applied Chemical Technologists and Technicians*)

2234 Construction Estimators

Construction Estimators analyze costs and prepare estimates on civil engineering, architectural, structural, electrical and mechanical construction projects.

Profile Summary										Examples of Job Titles	
APTITUDES											Chief Estimator - Construction
G	V	N	S	P	Q	K	F	M			Construction Estimator
2	2	2	3	3	3	4	4	4			Cost Estimator - Construction
INTERESTS											Principal Estimator - Construction
MIS											Quantity Surveyor - Construction
DATA PEOPLE THINGS (DPT)											
218											
PHYSICAL ACTIVITIES (PA)											
V	C	H	B	L	S						
2	0	2	1	0	1						
ENVIRONMENTAL CONDITIONS (EC)											
L1											
EDUCATION/TRAINING											
5+, 6, R											

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to prepare cost estimates of material, labour and equipment for construction projects based on contract bids, quotations, schematic drawings and specifications
- **Verbal ability** to advise on tendering procedures
- **Numerical ability** to prepare cost and expenditure statements at regular intervals during projects
- **Methodical interest** in establishing and maintaining tendering processes in setting up cost monitoring and reporting systems and procedures, and in preparing and maintaining directories of suppliers, contractors and subcontractors
- **Innovative interest** in analyzing to examine tenders and recommend tender awards
- **Social interest** in negotiating contracts; and in liaising, consulting and communicating with engineers, architects, owners, contractors and subcontractors on adjustments to cost estimates

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6, R

- Completion of secondary school is required.

- A civil engineering college diploma in construction technology or several years of experience as a qualified tradesperson in a construction trade, such as plumbing, carpentry or electrical, are required.
- Certification by the Canadian Institute of Quantity Surveyors may be required by some employers.
- In Quebec, membership in the professional corporation for estimators is mandatory.

Workplaces/Employers

Commercial construction companies

Industrial construction companies

Major electrical, mechanical and trade contractors

Residential construction companies

Occupational Options

Estimators may specialize in estimating costs for structural, electrical or mechanical construction projects

Similar Occupations Classified Elsewhere

*Civil Engineers (2131)**Civil Engineering Technologists and Technicians (2231)**Construction Managers (0711)*

Remarks

Estimators may specialize in estimating costs for structural, electrical or mechanical construction projects.

In data provided by Statistics Canada, groups 2231 and 2234 are combined to form 2230 *Civil Engineering Technologists and Technicians and Construction Estimators*.

2241.1 Electrical and Electronics Engineering Technologists

Electrical and Electronics Engineering Technologists may work independently or provide technical support and services in the design, development, testing, production and operation of electrical and electronic equipment and systems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	2	2	3	3	3	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H4

EDUCATION/TRAINING

6, R

Examples of Job Titles

Communications Technologist

Distribution Design Technologist,
Lines

Electrical Engineering Technologist

Electronics Design Technologist

Electronics Engineering Technologist

Electronics Manufacturing
Technologist

Electronics Technologist, Physics
Department

Lighting Technologist

Metering Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design, develop and test power equipment and systems, industrial process control systems, telecommunication, broadcast, recording and audio-visual systems, micro-electronic systems and circuits, computers, computer systems and networks, and computer software
- **Verbal and numerical ability** to write specifications, schedules and technical reports, and to control schedules and budgets
- **Spatial perception** to interpret and prepare engineering drawings and specifications
- **Form perception** to examine drawings, and to analyze and test materials and products to ensure that they adhere to specifications
- **Objective interest in precision working** to set up and operate specialized and standard equipment to test the performance of components, assemblies and systems
- **Innovative interest in analyzing** to carry out applied research in the fields of electrical and electronic engineering and physics under the direction of scientists and engineers; and in diagnosing and analyzing the performance of components, assemblies and systems
- **Methodical interest in supervising** the building and testing of prototypes according to general instructions and established standards; and in conducting and supervising the installation, commissioning and operation of electrical and electronic equipment and systems other than aircraft electronics or instruments

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H4 Electricity

Employment Requirements

Education/Training

- 6, R

- Completion of a two- or three-year college program in electrical or electronic engineering technology, computer engineering technology, telecommunications technology or an equivalent is usually required for electrical or electronic engineering technologists.

- Certification in electrical or electronic engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.
- In Quebec, membership in the professional corporation for technologists in the applied sciences is mandatory.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Communications companies
Consulting firms
Electrical utilities
Governments
Manufacturers of electrical and electronic equipment
Manufacturing, processing and transportation industries

Occupational Options

There is mobility to other related occupations such as technical sales, electronics service technicians, instrument technicians and avionics technicians.

Progression to managerial positions in engineering, production or operations is possible with experience.

Similar Occupations Classified Elsewhere

Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors (2244)

Electronic Service Technicians (Household and Business Equipment) (2242)

Industrial Instrument Technicians and Mechanics (2243)

Technical Sales Specialists, Wholesale Trade (6221)

2241.2 Electrical and Electronics Engineering Technicians

Electrical and Electronics Engineering Technicians may work independently or provide technical support and services in the design, development, testing, production and operation of electrical and electronic equipment and systems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	2	3	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H4

EDUCATION/TRAINING

6, R

Examples of Job Titles

Electrical Engineering Technician
Electronics Engineering Technician
Electronics Manufacturing Technician
Microwave Maintenance Technician
Production Support Technician, Electronics

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist in the design, development and testing of electrical and electronic components, equipment and systems
- **Verbal and numerical ability** to assist in the preparation of estimates, schedules, budgets, specifications and reports
- **Spatial perception** to interpret and prepare engineering drawings and specifications
- **Form perception** to assist in inspection, testing, adjusting and evaluation of components and assemblies to ensure that they conform with product specifications and tolerances
- **Objective interest in precision working** to conduct life tests (burn-ins) on assemblies, to install, operate and maintain equipment and systems, and to calibrate equipment and instruments according to technical manuals and written instructions
- **Methodical interest in compiling** and collecting operational and experimental data; and in assisting in building and testing prototypes to specifications
- **Innovative interest in assisting** to carry out a limited range of technical functions in support of research in electrical and electronic engineering and physics

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H4 Electricity

Employment Requirements

Education/Training

- 6, R

- Completion of a one- or two-year college program in electrical or electronic engineering technology is usually required for electrical or electronic engineering technicians.
- Certification in electrical or electronic engineering technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required for some positions.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Communications companies
 Consulting firms
 Electrical utilities
 Manufacturers of electrical and electronic equipment
 Manufacturing, processing and transportation industries

Occupational Options

There is mobility to other related occupations such as technical sales, electronics service technicians, instrument technicians and avionics technicians.

Progression to managerial positions in engineering, production or operations is possible with experience.

Similar Occupations Classified Elsewhere

Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors (2244)

Electronic Service Technicians (Household and Business Equipment) (2242)

Industrial Instrument Technicians and Mechanics (2243)

Technical Sales Specialists, Wholesale Trade (6221)

2242 Electronic Service Technicians (Household and Business Equipment)

Electronic Service Technicians service and repair household and business electronic equipment such as audio and video systems, computers and peripherals, office equipment and other consumer electronic equipment and assemblies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	3	4	3	3	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

261

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	4	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, H4

EDUCATION/TRAINING

4, 5, 6, R

Examples of Job Titles

Alarm System Technician
Audio-Video Service Technician
Computer Service Technician
Electronic Service Technician Supervisor
Field Service Technician, Electronic Products
Office Equipment Service Technician
Photocopy Machine Technician
Radio and Television Repair Apprentice
Television Servicer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to install, maintain and repair household and business electronic equipment such as televisions, radios, video cassette recorders, stereo equipment, photocopiers, computers and peripherals
- **Verbal ability** to complete work orders and test and maintenance reports
- **Spatial and form perception** to visualize the relationships of parts to assemblies and installation layouts from drawings and circuit diagrams
- **Motor co-ordination and finger and manual dexterity** to use soldering tools and other hand and power tools
- **Objective interest in precision working** to adjust, align, replace and repair equipment, assemblies and components following manuals and schematics; and to inspect and test equipment, components and assemblies using multimeters, circuit testers, oscilloscopes, logic probes and other test instruments, tools and equipment
- **Innovative interest in analyzing** equipment to diagnose and locate circuit, component and equipment faults
- **Methodical interest in speaking** to query customers regarding malfunctions; may supervise other electronic equipment service technicians

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools
- H4 Electricity

Employment Requirements

Education/Training

4, 5, 6, R

- Completion of a two-to-three year college program in electronics
or
completion of a four-year apprenticeship program in electronic servicing and repair
or
completion of high school or college courses in electronics and on-the-job training are required.
- Trade certification for electronic technician, consumer products is compulsory in Alberta and available, but voluntary, in Prince Edward Island, New Brunswick, Ontario, Saskatchewan, British Columbia, the Northwest Territories and the Yukon.
- In Quebec, membership in the professional corporation for electronic service technicians is mandatory.

Workplaces/Employers

Electronic service establishments

Retail and wholesale distributors

Service departments of electronic manufacturers

Similar Occupations Classified Elsewhere

Electrical and Electronics Engineering Technologists and Technicians (2241)

2243 Industrial Instrument Technicians and Mechanics

Industrial Instrument Technicians and Mechanics repair, maintain, calibrate, adjust and install industrial measuring and controlling instruments. Apprentices are included in this group.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	2	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

S, 6, R

Examples of Job Titles

Industrial Instrument Mechanic
Industrial Instrument Mechanic
Apprentice
Instrument Mechanic, Industrial
Instrument Technician, Industrial
Instrumentation Technician,
Industrial
Process Control Equipment Mechanic

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to consult manufacturers' manuals to determine test and maintenance procedures for instruments used to measure and control flow, level, pressure, temperature and other variables in manufacturing and processing
- Verbal ability to complete test and maintenance reports
- Finger dexterity to calibrate components and instruments according to manufacturers' specifications
- Objective interest in precision working to repair and adjust system components and replace defective parts and to install new control instruments on existing plant equipment
- Innovative interest in analyzing to inspect and test instruments to diagnose faults
- Methodical interest in performing scheduled preventive maintenance

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H3 Equipment, machinery, tools

Employment Requirements

Education/Training

5, 6, R

- Completion of secondary school is usually required.
- Completion of a four-year apprenticeship program in industrial instrument repair or completion of a two-year college program in industrial instrumentation technology and several years of work experience are usually required for trade certification.

- Industrial-instrument-mechanic trade certification is available, but voluntary, in Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Manitoba, Saskatchewan, Alberta, British Columbia, the Northwest Territories and the Yukon.
- Interprovincial trade certification (Red Seal) is also available to qualified industrial instrument mechanics.
- In Quebec, membership in the professional corporation for technologists in the applied sciences is mandatory.

Workplaces/Employers

Hydro-electric power generating companies

Industrial instrument companies

Industrial instrument servicing establishments

Manufacturing companies

Mining companies

Natural gas companies

Nuclear power generating companies

Petrochemical companies

Pulp and paper processing companies

Occupational Options

Red Seal trade certification allows for interprovincial mobility.

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Electrical and Electronics Engineering Technologists and Technicians (2241)

Aircraft instrument technicians (in 2244 Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors)

Industrial mechanics [in 7311 Construction Millwrights and Industrial Mechanics (Except Textile)]

2244.1 Aircraft Instrument Mechanics and Technicians

Aircraft Instrument Mechanics and Technicians repair, modify and bench-test aircraft instruments used for measuring, controlling and indicating physical characteristics such as temperature and pressure.

Profile Summary										Examples of Job Titles									
APTITUDES										Aircraft Instrument Mechanic Instrument Inspector, Aircraft Instrument Overhaul and Repair Mechanic									
G	V	N	S	P	Q	K	F	M											
3	3	3	2	2	4	3	2	2											
INTERESTS																			
OMi																			
DATA PEOPLE THINGS (DPT)																			
281																			
PHYSICAL ACTIVITIES (PA)																			
V	C	H	B	L	S														
2	1	1	4	1	2														
ENVIRONMENTAL CONDITIONS (EC)																			
L1, H3, H4, D1																			
EDUCATION/TRAINING																			
5, 6, R																			

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to repair, overhaul, install and test aircraft instruments
- **Spatial perception** to visualize, from drawings, the relationship and arrangement of parts in order to set up and adjust precision instruments

- **Form perception** to examine instruments for defects and signs of wear
- **Finger dexterity** to manipulate small parts of instruments, test equipment and precision hand tools
- **Manual dexterity** to disassemble faulty instruments, using hand tools, and to clean and lubricate parts
- **Objective interest in precision working** to adjust components to revised tolerances, and to test instruments using electrical and electronic test equipment, micrometers, pressure gauges and vacuum-pump testers
- **Methodical interest** in testing instruments to ensure that they conform to operating specifications
- **Innovative interest in analyzing** equipment to diagnose causes of instrument malfunctions

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H3 Equipment, machinery, tools

H4 Electricity

Discomforts

D1 Noise

Employment Requirements

Education/Training

5, 6, R

- Aircraft instrument and avionics mechanics and technicians require completion of a two-to-three year college program in avionics or electronics
or
completion of a four-year apprenticeship program.

- Several years of on-the-job training are provided for all mechanics and technicians in this unit group.
- Mechanics and technicians who sign maintenance releases require an Aircraft Maintenance Engineer's (AME) licence issued by Transport Canada.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.
- Avionics inspectors require an AME licence with endorsements for avionics systems.

Workplaces/Employers

Aircraft maintenance establishments

Aircraft manufacturing establishments

Aircraft overhaul establishments

Airlines

Canadian Forces and other aircraft operators

Occupational Options

Progression to supervisory positions within specific areas of expertise is possible with experience.

Avionics inspectors may also acquire further endorsements to their AME licence, allowing them to inspect and certify a broader range of aircraft and avionics systems.

An AME licence can be obtained by fulfilling the educational and training requirements as stated above and by passing Transport Canada AME examinations.

Similar Occupations Classified Elsewhere

Aircraft Assemblers and Aircraft Assembly Inspectors (9481)

Aircraft mechanics and maintenance engineers who maintain and inspect aircraft structures, mechanical, hydraulic or propulsion systems (in 7315 *Aircraft Mechanics and Aircraft Inspectors*)

Government airworthiness inspectors (in 2262 *Engineering Inspectors and Regulatory Officers*)

2244.2 Aircraft Electrical Mechanics and Technicians

Aircraft Electrical Mechanics and Technicians install, repair and service electrical equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	4	3	2	2

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	4	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, H4, D1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Aircraft Electrical Technician

Aircraft Electrician

Electronics Inspector, Missiles

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to repair, overhaul, modify, install and test aircraft electrical systems and equipment
- **Spatial perception** to visualize equipment layout from circuit diagrams and drawings, and to incorporate modifications following these drawings
- **Form perception** to recognize structural and mechanical defects, and to watch for correct operations of relays, instruments and lighting
- **Finger dexterity** to manipulate screws, wires and other small parts when installing, removing and disassembling equipment for repair
- **Manual dexterity** to handle parts and use hand tools, power tools and electrical test equipment
- **Objective interest in precision working** to test systems and equipment
- **Methodical interest** in measuring voltage, current and resistance at specified locations when diagnosing faults
- **Innovative interest in analyzing** data from observations of equipment in operation, by examinations of parts and from electrical tests, to diagnose faults

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools
- H4 Electricity

Discomforts

- D1 Noise

Employment Requirements

Education/Training
6, R

- Aircraft electrical mechanics and technicians usually require completion of a college program as an electrical or electronic technician.

- Several years of on-the-job training are provided for all mechanics and technicians in this group.

- Avionics inspectors require completion of a two-to-three year college program in avionics or electronics plus three to five years of experience as an avionics mechanic or technician

- Mechanics and technicians who sign maintenance releases require an Aircraft Maintenance Engineer's (AME) licence issued by Transport Canada.

- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Aircraft maintenance establishments

Aircraft manufacturing establishments

Aircraft overhaul establishments

Airlines

Canadian Forces and other aircraft operators

Occupational Options

Progression to supervisory positions within specific areas of expertise is possible with experience.

Avionics inspectors may also acquire further endorsements to their AME licence, allowing them to inspect and certify a broader range of aircraft and avionics systems.

An AME licence can be obtained by fulfilling the educational and training requirements as stated above and by passing Transport Canada AME examinations.

Similar Occupations Classified Elsewhere

Aircraft Assemblers and Aircraft Assembly Inspectors (9481)

Aircraft mechanics and maintenance engineers who maintain and inspect aircraft structures, mechanical, hydraulic or propulsion systems (in 7315 *Aircraft Mechanics and Aircraft Inspectors*)

Government airworthiness inspectors (in 2262 *Engineering Inspectors and Regulatory Officers*)

2244.3 Avionics Mechanics and Technicians

Avionics Mechanics and Technicians modify, repair and overhaul aircraft electronic systems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	4	3	2	2

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	4	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, H4, D1

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Avionics Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to repair, overhaul, modify, adjust and test aircraft electronic systems and equipment, including communication and navigation equipment
- **Spatial perception** to visualize equipment layouts from circuit diagrams or drawings
- **Form perception** to recognize structural and mechanical defects
- **Finger dexterity** to manipulate screws, wires and other small parts when repairing and overhauling systems and equipment
- **Manual dexterity** to handle parts and use hand tools, power tools and test equipment
- **Objective interest in precision working** to modify, adjust and test systems and equipment
- **Methodical interest** in testing equipment to ensure repairs have been made
- **Innovative interest in analyzing** data from the observation of equipment in operation and by the examination of parts and results of electrical tests to diagnose faults

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
1	Relevant
Hearing	
1	Limited
Body Position	
4	Other body positions
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
2	Light

Environmental Conditions

Location	
L1	Regulated inside climate
Hazards	
H3	Equipment, machinery, tools
H4	Electricity
Discomforts	
D1	Noise

Employment Requirements

Education/Training
S, 6, R

- Aircraft instrument and avionics mechanics and technicians require completion of a two-to-three year college program in avionics or electronics
or
completion of a four-year apprenticeship program.

- Several years of on-the-job training are provided for all mechanics and technicians in this group.
- Mechanics and technicians who sign maintenance releases require an Aircraft Maintenance Engineer's (AME) licence issued by Transport Canada.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Aircraft maintenance establishments
Aircraft manufacturing establishments
Aircraft overhaul establishments
Airlines
Canadian Forces and other aircraft operators

Occupational Options

Progression to supervisory positions within specific areas of expertise is possible with experience.

Avionics inspectors may also acquire further endorsements to their AME licence, allowing them to inspect and certify a broader range of aircraft and avionics systems.

An AME licence can be obtained by fulfilling the educational and training requirements as stated above and by passing Transport Canada AME examinations.

Similar Occupations Classified Elsewhere

Aircraft Assemblers and Aircraft Assembly Inspectors (9481)

Aircraft mechanics and maintenance engineers who maintain and inspect aircraft structures, mechanical, hydraulic or propulsion systems (in 7315 *Aircraft Mechanics and Aircraft Inspectors*)

Government airworthiness inspectors (in 2262 *Engineering Inspectors and Regulatory Officers*)

2244.4 Avionics Inspectors

Avionics Inspectors examine instrument, electrical and avionics systems following assembly, modification, repair and overhaul.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, H4, D1

EDUCATION/TRAINING

6+, R

Examples of Job Titles

Avionics Inspector

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to inspect instrument, electrical and avionics systems following assembly, modification, repair and overhaul
- **Spatial perception** to visualize equipment layouts from circuit diagrams or drawings
- **Form perception** to recognize structural and mechanical defects
- **Objective interest in precision working** to inspect and test aircraft instrument, electrical and avionics systems
- **Methodical interest** in certifying that the installation, maintenance, repair and overhaul of systems meet Transport Canada and company standards of performance and safety
- **Innovative interest** in analyzing data obtained from the inspection and testing of equipment to detect malfunctions

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools
- H4 Electricity

Discomforts

- D1 Noise

Employment Requirements

Education/Training

- 6+, R

- Avionics inspectors require completion of a two-to-three year college program in avionics or electronics, three to five years of experience as an avionics mechanic or technician and an AME licence with endorsements for avionics systems.

Workplaces/Employers

Aircraft maintenance establishments

Aircraft manufacturing establishments

Aircraft overhaul establishments

Airlines

Canadian Forces and other aircraft operators

Occupational Options

Progression to supervisory positions within specific areas of expertise is possible with experience.

Avionics inspectors may also acquire further endorsements to their AME licence, allowing them to inspect and certify a broader range of aircraft and avionics systems.

An AME licence can be obtained by fulfilling the educational and training requirements as stated above and by passing Transport Canada AME examinations.

Similar Occupations Classified Elsewhere

Aircraft Assemblers and Aircraft Assembly Inspectors (9481)

Aircraft mechanics and maintenance engineers who maintain and inspect aircraft structures, mechanical, hydraulic or propulsion systems (in 7315 *Aircraft Mechanics and Aircraft Inspectors*)

Government airworthiness inspectors (in 2262 *Engineering Inspectors and Regulatory Officers*)

2251 Architectural Technologists and Technicians

Architectural Technologists and Technicians may work independently or provide technical assistance to professional architects and civil design engineers in conducting research, in preparing drawings, architectural models, specifications and contracts and in supervising construction projects.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	2	2	3	3	3	4

INTERESTS

IMO

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Architectural Design Technician
Architectural Design Technologist
Architectural Technician
Architectural Technologist
Building Technologist, Residential

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to perform technical functions in architecture, primarily in support of design, development, estimates and site supervision
- **Verbal ability** to prepare contracts and bidding documents
- **Numerical ability** to prepare cost estimates and listings of materials from drawings and instructions
- **Spatial perception** to interpret and prepare drawings and specifications
- **Form perception** to observe details and make visual comparisons when examining drawings
- **Innovative interest in analyzing** building codes, by-laws, space requirements, site requirements and other technical documents and reports
- **Methodical interest in supervising** to represent building architects on construction sites to ensure compliance with design specifications and maintenance of desired standards of materials and quality of work; may supervise construction projects and co-ordinate, monitor and inspect work done by others; may supervise draftspersons, technicians and technologists on architectural teams
- **Objective interest in precision working** to assist in the development of architectural designs and to construct architectural and display models

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
-

Employment Requirements

Education/Training

6, R

- Completion of a one-to-three year college program in architectural technology or a related subject is usually required.
 - Certification in architectural technology or in a related field through provincial associations of engineering/applied science technologists and technicians may be required by employers.
 - In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.
 - A period of supervised work experience, usually two years, is required before certification.
-

Workplaces/Employers

Architectural firms

Construction firms

Governments

Industrial establishments

Occupational Options

There is mobility to other related occupations such as draftspersons, civil engineering technologists and technicians, construction estimators and construction inspectors.

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

Civil Engineering Technologists and Technicians (2231)

Construction Estimators (2234)

Construction Inspectors (2264)

Construction Managers (0711)

Drafting Technologists and Technicians (2253)

Survey Technologists and Technicians (2254)

2252 Industrial Designers

Industrial Designers conceptualize and produce designs for manufactured products.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	2	4	2	2	3

INTERESTS

IMO

DATA PEOPLE THINGS (DPT)

061

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Furniture Designer
Industrial Design Consultant
Industrial Designer
Industrial Products Designer
Package Designer
Product Designer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to analyze intended use of products and user preferences
- **Verbal ability** to consult with clients, engineers and production specialists to establish product requirements
- **Spatial perception** to prepare design concepts, sketches and models, and to prepare specifications and guidelines for production
- **Form perception** to notice details in objects, materials and pictorial and graphic designs
- **Motor co-ordination and finger dexterity** to work with small objects such as drafting instruments, scissors and brushes
- **Innovative interest** in **synthesizing** information to conduct research into cost and properties of production materials and methods of production
- **Methodical interest** in **speaking** to consult with engineers and production staff during manufacturing stages
- **Objective interest** in **precision working** to construct design prototypes

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- A university degree in industrial design, architecture or engineering
or
a college diploma in industrial design is required.
- Creative ability, as demonstrated by a portfolio of work, is required.

Workplaces/Employers

Manufacturing industries

Private design firms

Self-employment

Occupational Options

There is mobility among positions in this group.

Mobility is possible to other design occupations.

Similar Occupations Classified Elsewhere

Architectural Technologists and Technicians (2251)

Graphic Designers and Illustrating Artists (5241)

Interior Designers (5242)

Theatre, Fashion, Exhibit and Other Creative Designers (5243)

Civil engineering design technologists (in 2231 *Civil Engineering Technologists and Technicians*)

Electrical and electronic design technologists (in 2241 *Electrical and Electronics Engineering Technologists and Technicians*)

Engineering design technicians and technologists, not elsewhere classified (in 2253 *Drafting Technologists and Technicians*)

Mechanical engineering equipment designers (in 2232 *Mechanical Engineering Technologists and Technicians*)

2253.1 Drafting Technologists

Drafting Technologists prepare engineering designs, drawings and related technical information working independently, in multidisciplinary engineering teams or in support of engineers, architects and industrial designers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	2	2	2	3	2	2	3

INTERESTS

MIO

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Architectural Draftsperson
Computer-Aided Design and Drafting Technologist
Design and Drafting Technologist
Drafting Technologist
Draftsperson
Electrical Draftsperson
Electromechanical Draftsperson
Electronic Draftsperson
Engineering Design and Drafting Technologist
Mechanical Draftsperson
Structural Draftsperson
Supervisor, Drafting Office
Technical Illustrator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop and prepare engineering designs and drawings from preliminary concepts, sketches, engineering calculations, specification sheets and other data
- **Numerical ability** to prepare construction specifications, costs and material estimates
- **Spatial and form perception** to develop and prepare design sketches
- **Motor co-ordination and finger dexterity** to manipulate and make adjustments to drafting instruments, and to operate computer-aided design and drafting stations
- **Methodical interest** in supervising and training other technologists, technicians and draftspersons
- **Innovative interest** in analyzing data to complete documentation packages and produce drawing sets
- **Objective interest** in precision working to check and verify design drawings to ensure that they conform to specifications and design data
- **Verbal ability** to write technical reports and to prepare contracts and tender documents

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

6, R

- Completion of secondary school is usually required.
- Completion of a two-to-three year college program in engineering design and drafting technology, or in a related field is usually required for drafting and design technologists.
- Certificate of qualification for draftspersons is available from provincial apprenticeship authorities but is voluntary.

- Certification in engineering design and drafting technology or in a related field through provincial associations of engineering/applied science technologists and technicians may be required by employers.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Consulting and construction companies

Governments

Utility, resource and manufacturing companies

Occupational Options

Mobility to civil, mechanical, electrical or other engineering design technologies is possible through educational or work specialization.

Senior and supervisory drafting and design technology workers require experience.

Similar Occupations Classified Elsewhere

Industrial Designers (2252)

Architectural design technologists (in 2251 *Architectural Technologists and Technicians*)

Civil engineering design technologists (in 2231 *Civil Engineering Technologists and Technicians*)

Electrical and electronic engineering design technologists (in 2241 *Electrical and Electronics Engineering Technologists and Technicians*)

Mechanical engineering design technologists (in 2232 *Mechanical Engineering Technologists and Technicians*)

2253.2 Drafting Technicians

Drafting Technicians prepare engineering designs, drawings and related technical information working independently, in multidisciplinary engineering teams or in support of engineers, architects and industrial designers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	3	2	2	3

INTERESTS

MIO

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, R

Examples of Job Titles

Architectural Draftsperson
Computer-Aided Drafting Technician
Drafting Technician
Draftsperson
Electrical Draftsperson
Electromechanical Draftsperson
Electronic Draftsperson
Mechanical Draftsperson
Structural Draftsperson
Supervisor, Drafting Office
Technical Illustrator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop and prepare engineering drawings, plans, diagrams and layouts from sketches
- **Spatial and form perception** to visualize three-dimensional objects and forms when preparing diagrams and layouts
- **Motor co-ordination and finger dexterity** to manipulate and make adjustments to drafting instruments, and to operate computer-aided drafting equipment and/or conventional drafting stations
- **Methodical interest in compiling** data to examine drawings to check for errors
- **Innovative interest in assisting** technologists and engineers to prepare engineering drawings, diagrams and layouts
- **Objective interest in precision working** to use precision measuring instruments and other drafting tools

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, R

- Completion of a one-to-two year college program in drafting
or
completion of a four-year apprenticeship training in drafting
or
four to five years of related experience plus completion of college or industry courses in drafting are usually required for drafting technicians.

- Certificate of qualification for draftspersons is available from provincial apprenticeship authorities but is voluntary.
- Certification in engineering design and drafting technology or engineering/applied science technologists and technicians may be required before certification.
- A period of supervised work experience, usually two years, is required before certification.

Workplaces/Employers

Consulting and construction companies

Governments

Utility, resource and manufacturing companies

Occupational Options

Mobility to civil, mechanical, electrical or other engineering design technologies is possible through educational or work specialization.

Senior and supervisory drafting and design technology workers require experience.

Similar Occupations Classified Elsewhere

Industrial Designers (2252)

Architectural design technologists (in 2251 *Architectural Technologists and Technicians*)

Civil engineering design technologists (in 2231 *Civil Engineering Technologists and Technicians*)

Electrical and electronic engineering design technologists (in 2241 *Electrical and Electronics Engineering Technologists and Technicians*)

Mechanical engineering design technologists (in 2232 *Mechanical Engineering Technologists and Technicians*)

2254.1 Survey Technologists

Survey Technologists conduct surveys to determine the exact location and relative position of natural features and other structures on the earth's surface.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	2	2	2	3	3	3	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Engineering Survey Technologist

Geodetic Survey Technologist

Survey Technologist

Transit Operator - Surveying

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct field surveys to determine the exact location and relative position of natural features and other structures on the earth's surface
- **Verbal ability** to prepare notes and reports
- **Numerical ability** to compute trigonometric and other calculations to plot features, contours and areas to specific scales
- **Spatial perception** to visualize and plot, on maps and field sheets, such topographical data as elevations, distances and contour lines
- **Form perception** to obtain precise readings from surveying instruments, to examine maps and aerial photographs, to prepare drawings, charts and plans, and to make and revise maps
- **Motor co-ordination and finger dexterity** to operate instruments to measure distance, angles, elevations and contours, and to prepare detailed drawings, charts and plans
- **Objective interest in precision working** to adjust and calibrate instruments and to prepare drawings, charts and plans
- **Innovative interest in analyzing** latitude, longitude and angles to plot features, contours and areas; and in assisting survey engineers and professional surveyors to develop methods and procedures for conducting field surveys
- **Methodical interest in supervising** and co-ordinating field survey activities; and in recording measurements and other information obtained during activities

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training

5, 6, R

- Completion of secondary school is usually required.
- Completion of a two-to-three year college program in survey technology is usually required for survey technologists.
- Apprenticeship training for survey technicians and technologists is available in New Brunswick.
- Certification by provincial associations of survey technicians and technologists may be required by some employers.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Governments

Private-sector surveying establishments

Occupational Options

Mobility is possible among the various occupations in this group.

Similar Occupations Classified Elsewhere

Civil Engineering Technologists and Technicians (2231)

Drafting Technologists and Technicians (2253)

Geological and Mineral Technologists and Technicians (2212)

Mapping and Related Technologists and Technicians (2255)

Remarks

Survey technologists and technicians may specialize in one of the following types of surveys: geodetic, topographic, legal or engineering.

2254.2 Survey Technicians

Survey Technicians participate in surveys to determine the exact location and relative position of natural features and other structures on the earth's surface.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	3	3	3

INTERESTS

Omi

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Land Survey Technician

Legal Survey Technician

Survey Technician

Topographic Survey Technician

Transit Operator - Surveying

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to participate in field surveys to determine the exact location and relative position of natural features and other structures on the earth's surface
- **Numerical ability** to assist in the calculation of measurements obtained during surveys
- **Spatial perception** to visualize and plot, on maps and field sheets, such topographical data as elevations, distances and contour lines
- **Form perception** to obtain precise readings from instruments, to examine maps and aerial photographs, to prepare drawings, charts and plans, and to make and revise maps
- **Motor co-ordination and finger dexterity** to operate instruments to measure distance, angles, elevations and contours
- **Objective interest in precision working** to adjust and calibrate instruments
- **Methodical interest in compiling** information to keep records, measurements and other information in systematic order
- **Innovative interest in assisting** in the preparation of detailed drawings and the calculation and analyses of measurements

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
1 Relevant

Hearing
1 Limited

Body Position
3 Sitting, standing, walking

Limb Co-ordination
1 Upper limb co-ordination

Strength
2 Light

Environmental Conditions

Location
L1 Regulated inside climate
L3 Outside

Employment Requirements

Education/Training
5, 6, R

- Completion of a one-to-two year college program in survey technology is usually required for survey technicians.
- Apprenticeship training for survey technicians and technologists is available in New Brunswick.
- Certification by provincial associations of survey technicians and technologists may be required by some employers.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Governments
Private-sector surveying establishments

Occupational Options

Mobility is possible among the various occupations in this group.

Similar Occupations Classified Elsewhere

Civil Engineering Technologists and Technicians (2231)

Drafting Technologists and Technicians (2253)

Geological and Mineral Technologists and Technicians (2212)

Mapping and Related Technologists and Technicians (2255)

Remarks

Survey technologists and technicians may specialize in one of the following types of surveys: geodetic, topographic, legal or engineering.

2255.1 Cartographic Technologists and Technicians

Cartographic Technologists and Technicians prepare and revise maps and charts from photographs, manuscripts, survey notes and other maps.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	2	2	2	3	2	2	3

INTERESTS

IMO

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Cartographer
Cartographic Technician
Cartographic Technologist
Mapping Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan map content, format and design
- **Numerical ability** to use arithmetic, algebraic and geometric procedures to calculate scaled dimensions
- **Spatial and form perception** to inspect final compositions to ensure completeness and accuracy
- **Motor co-ordination and finger dexterity** to manipulate and make adjustments to drafting instruments and other technical equipment
- **Innovative interest** in generating maps and related graphs and charts
- **Methodical interest** in analyzing information to compile required data from aerial photographs, surveys notes, records, reports and other maps
- **Objective interest in precision working** to use digital mapping techniques, computer interactive graphics, traditional drafting methods and computer and traditional scribing tools

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, R

- Completion of secondary school is required.
- Technologists in this group require completion of a two-to-three year college program in cartography, photogrammetry, aerial survey, remote sensing, geographic information systems (GIS) or a combination of some of these disciplines.

- Technicians in this group require completion of a one-to-two year college program in cartography.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Computer software companies

Governments

Private-sector mapping companies

Occupational Options

Mobility is possible among some occupations in this group.

Similar Occupations Classified Elsewhere

Drafting Technologists and Technicians (2253)

Survey Technologists and Technicians (2254)

2255.2 Photogrammetric Technologists and Technicians

Photogrammetric Technologists and Technicians co-ordinate the preparation of topographical maps, charts and related material from aerial photographs and other data.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	2	2	2	3	4	4	4

INTERESTS

IOM

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

- Photogrammetric Technician
- Photogrammetric Technologist
- Photogrammetrist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to examine and interpret aerial photographs in order to prepare maps, mosaics and related charts
- **Numerical ability** to apply standard mathematical formulas to identify, scale and orient geodetic points, elevations and other planimetric and topographic features and cartographic detail
- **Spatial and form perception** to prepare topographic maps, aerial-photograph mosaics and related charts and tables
- **Innovative interest in analyzing** information to provide three-dimensional optical models of terrain
- **Objective interest in precision working** to operate stereoscopic plotting and computer graphics equipment
- **Methodical interest** to trace maps and prepare charts and tables

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, R

- Completion of secondary school is required.
- Technologists in this group require completion of a two-to-three year college program in cartography, photogrammetry, aerial survey, remote sensing, geographic information systems (GIS) or a combination of some of these disciplines.

- Technicians in this group require completion of a one-to-two year college program in photogrammetry.

- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Computer software companies

Governments

Private-sector mapping companies

Occupational Options

Mobility is possible among some occupations in this group.

Similar Occupations Classified Elsewhere

Drafting Technologists and Technicians (2253)

Survey Technologists and Technicians (2254)

2255.3 Aerial Survey Technologists and Technicians

Aerial Survey Technologists and Technicians operate remote sensing equipment and interpret aerial photographs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	2	3	3	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

282

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Aerial Survey Technician

Aerial Survey Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the operation of remote sensing equipment such as survey cameras, sensors and scanners
- **Spatial and form perception** to inspect the quality of recorded images of large areas of the earth and atmosphere
- **Objective interest in controlling** and adjusting airborne remote sensing equipment such as survey cameras, sensors and scanners
- **Methodical interest in analyzing** images to monitor the recording quality of equipment
- **Innovative interest** in producing images of large areas of the earth and atmosphere for applications in forestry, geology, urban planning and other fields of science

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, R

- Completion of secondary school is required.

- Technologists in this group require completion of a two-to-three year college program in cartography, photogrammetry, aerial survey, remote sensing, geographic information systems (GIS) or a combination of some of these disciplines.

- Technicians in this group require completion of a one-to-two year college program in aerial surveys.

- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Computer software companies

Governments

Private-sector mapping companies

Occupational Options

Mobility is possible among some occupations in this group.

Similar Occupations Classified Elsewhere

Drafting Technologists and Technicians (2253)

Survey Technologists and Technicians (2254)

2255.4 Remote Sensing Technologists and Technicians

Remote Sensing Technologists and Technicians operate remote sensing interpretive equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	2	2	2	3	3	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Remote Sensing (RS) Technician
RS Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate airborne remote-sensing equipment to acquire survey data for applications such as agriculture and forestry land use, heat loss assessments and industrial support services
- **Numerical ability** to prepare graphic and alphanumeric reports
- **Spatial and form perception** to prepare flight plans and sensor configurations for airborne missions by selecting and interpreting maps
- **Objective interest in precision working** with analog and computer-based remote-sensing interpretative equipment
- **Methodical interest** in verifying the integrity and accuracy of data contained in remote-sensing image-analysis systems
- **Innovative interest in analyzing** data to develop specialized analog and computer software to customize and integrate image analyses

Physical Activities

Vision
2 Near vision

Colour Discrimination
1 Relevant

Hearing
1 Limited

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
6, R

- Completion of secondary school is required.
- Technologists in this group require completion of a two-to-three year college program in cartography, photogrammetry, aerial survey, remote sensing, geographic information systems (GIS) or a combination of some of these disciplines.
- Technicians in this group require completion of a one-to-two year college program in remote sensing.
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Computer software companies
Governments
Private-sector mapping companies

Occupational Options

Mobility is possible among some occupations in this group.

Similar Occupations Classified Elsewhere

Drafting Technologists and Technicians (2253)

Survey Technologists and Technicians (2254)

2255.5 Geographic Information System (GIS) Technologists and Technicians

Geographic Information System Technologists and Technicians operate computer-based systems to prepare geographic reports, maps and charts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	2	2	2	3	3	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

284

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Geographic Information System (GIS) Technician

GIS Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the operations of computer-based geographic information management equipment
- **Numerical ability** to prepare graphic and alphanumeric reports
- **Spatial and form perception** to prepare maps and charts
- **Objective interest in operating** equipment to use geographical information systems, and to perform maintenance following predetermined calibration procedures
- **Methodical interest** to perform data entry and editing activities
- **Innovative interest** in analyzing information to develop specialized computer software routines that customize geographic information

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, R

- Completion of secondary school is required.
- Technologists in this group require completion of a two-to-three year college program in cartography, photogrammetry, aerial survey, remote sensing, geographic information systems (GIS) or a combination of some of these disciplines.
- Technicians in this group require completion of a one-to-two year college program in geographic information systems (GIS).
- In Quebec, membership in the professional corporation for technologists in applied sciences is mandatory.

Workplaces/Employers

Computer software companies

Governments

Private-sector mapping companies

Occupational Options

Mobility is possible among some occupations in this group.

Similar Occupations Classified Elsewhere

Drafting Technologists and Technicians (2253)

Survey Technologists and Technicians (2254)

2261 Nondestructive Testers and Inspectors

Nondestructive Testers and Inspectors operate radiographic, ultrasonic, liquid penetrant, magnetic particle, eddy current and similar testing equipment to detect defects in objects of various compositions and materials.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	4	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

261

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4, 6, R

Examples of Job Titles

Acoustic Emission Technician
Boiler Tester
Eddy-Current Technician
Industrial Radiographer
Infra-Red Thermographer
Liquid Penetrant Technician
Magnetic Particle Technician
Maintenance Technician, NDT
Nondestructive Examiner
Nondestructive Inspector
Nondestructive Tester (NDT)
Pipe Inspector
Pressure Tester
Radiographic Technician
Ultrasonic Technician
Vibration Analysis Technician
Weld Inspector

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to establish techniques for examination of objects under inspection to ensure that they adhere to safety regulations
- **Numerical ability** to obtain precise readings from radiographic, ultrasonic, liquid penetrant, magnetic particle, eddy-current and similar testing equipment
- **Spatial and form perception** to interpret radiographs, cathode-ray tube (CRT) and digital readouts, conductivity meters and visual indicators
- **Motor co-ordination and manual dexterity** to operate testing equipment
- **Objective interest in precision working** to conduct tests to ensure quality and detect defects
- **Innovative interest in analyzing** information to interpret radiographs, readouts, meters and visual indicators and to evaluate test results
- **Methodical interest in speaking** to organize and report test results; and in applying testing criteria according to specifications and standards; may instruct and supervise trainees

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

3, 4, 6, R

- Completion of secondary school or completion of two years of an engineering program at a college or university is required.
- Additional classroom and on-the-job training is required for certification in nondestructive testing.
- Nondestructive testing certification by the Canadian General Standards Board (CGSB) is available in three levels and may be required by employers.
- Industrial radiographers using a radioactive isotope require an operator's licence issued by the Atomic Energy Control Board.

Workplaces/Employers

Private industrial-inspection establishments

Quality control, maintenance and safety departments of companies involved in energy, manufacturing, processing and transportation

Similar Occupations Classified Elsewhere

Engineering Inspectors and Regulatory Officers (2262)

Radiographic or ultrasonic equipment-operating occupations in medical laboratories or hospitals [in minor group 321 *Medical Technologists and Technicians (Except Dental Health)*]

2262.1 Motor Vehicles Defects Investigators

Motor Vehicles Defects Investigators examine automobiles and trucks to ensure that they conform to government and industry standards and regulations.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	3	3	3	4	4	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

224

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5+, 6, 7, R

Examples of Job Titles

Engineering Inspector

Motor Vehicles Defects Investigator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct motor vehicle and component defect-investigations, examinations, tests and defect-related accident investigations
- **Verbal ability** to recommend improvements in vehicle inspections, licensing procedures and safety standards
- **Spatial and form perception** to inspect motor vehicles and components
- **Methodical interest** in analyzing data from investigations, examinations and tests
- **Innovative interest in operating - manipulating** vehicles to conduct investigations, examinations, tests and defect-related accident investigations
- **Directive interest in consulting** to provide advice and testimony on performance problems and defects

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

5+, 6, 7, R

- University degree or college diploma in an appropriate engineering field or trade qualifications and extensive, related work experience are required.
- Appropriate professional engineering or engineering technology certification and licences may be required.

Workplaces/Employers

Government agencies

Private-sector companies

Similar Occupations Classified Elsewhere

*Construction Inspectors (2264)**Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)*

2262.2 Railway Accident Investigation Officers

Railway Accident Investigation Officers examine railway accidents to determine their causes.

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Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to collect and analyze data from train derailments, collisions and other accidents to determine causes
- **Spatial and form perception** to inspect and evaluate railway properties, structures, rolling stock, signals, track structures and train handling characteristics
 - **Methodical interest** in handling railway property and equipment to ensure that they comply with operating standards
- **Innovative interest** in analyzing data from derailments, collisions and other accidents to determine causes; and in inspecting and evaluating properties
 - **Directive interest** in enforcing adherence to government and industry standards and regulations

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

5+, 6, 7, R

- University degree or college diploma in an appropriate engineering field
or
trade qualifications and extensive, related work experience are required.
- Appropriate professional engineering or engineering technology certification and licences may be required.

Workplaces/Employers

Government agencies

Private-sector companies

Similar Occupations Classified Elsewhere

*Construction Inspectors (2264)**Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)*

2262.3 Airworthiness Inspectors

Airworthiness Inspectors examine aircraft and industrial instruments, processes and equipment to ensure that they conform to government and industry standards and regulations.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	3	3	3	4	4	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

267

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5+, 6, 7, R

Examples of Job Titles

Airworthiness Inspector

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to inspect the activities of establishments and individuals holding, and applying for, air carrier operating certificates, and establishments engaged in aircraft maintenance, repair and modification
- **Spatial and form perception** to inspect aircraft for defects and wear
- **Methodical interest in analyzing** data from inspections to ensure that the activities of establishments and individuals conform to government and industry standards and regulations
- **Innovative interest in handling** aircraft equipment for inspection
- **Directive interest in speaking** with crew to detain aircraft suspected of being unairworthy and unsafe

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

5+, 6, 7, R

- University degree or college diploma in an appropriate engineering field
or
trade qualifications and extensive, related work experience are required.
- Appropriate professional engineering or engineering technology certification and licences may be required.

Workplaces/Employers

Government agencies

Private-sector companies

Similar Occupations Classified Elsewhere

*Construction Inspectors (2264)**Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)*

2262.4 Inspectors, Weights and Measures

Inspectors, Weights and Measures examine devices, such as scales, meters and industrial instruments, processes and equipment, to ensure that they conform to government and industry standards and regulations.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	3	3	3	4	4	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

267

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5+, 6, 7, R

Examples of Job Titles

Inspector, Weights and Measures

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to conduct inspections and tests of mechanical and electronic weighing and measuring devices and systems
- Verbal ability to prepare reports
- Spatial and form perception to detect signs of wear and defects
- Methodical interest in handling equipment to test mechanical and electronic weighing and measuring devices and systems
- Innovative interest in analyzing data from inspections
- Directive interest in speaking with management to recommend corrective and enforcement actions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

5+, 6, 7, R

- University degree or college diploma in an appropriate engineering field
or
trade qualifications and extensive, related work experience are required.
- Appropriate professional engineering or engineering technology certification and licences may be required.

Workplaces/Employers

Government agencies

Private-sector companies

Similar Occupations Classified Elsewhere

*Construction Inspectors (2264)**Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)*

2263 Inspectors in Public and Environmental Health and Occupational Health and Safety

Inspectors in this group investigate health- and safety-related complaints and inspect restaurants, food processing and industrial establishments, hotels, municipal water systems and other workplaces to ensure that they comply with government regulations regarding sanitation, pollution control, the handling and storage of hazardous substances and workplace safety.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

267

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H1, H2, H5*

EDUCATION/TRAINING

4, 6, 7, R

Examples of Job Titles

Environmental Health Officer
 Hazardous Waste Inspector
 Health and Safety Officer
 Health Standards Inspector
 Occupational Health and Safety Officer
 Pollution Control Inspector
 Public Health Inspector
 Restaurant Inspector
 Rodent Control Officer
 Supervisor, Public Health Inspectors
 Water Inspector

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to inspect sanitary conditions of restaurants, hotels, schools, hospitals and other public facilities and institutions, and to inspect workplaces to ensure that equipment, materials and production processes do not present safety and health hazards to employees and the general public
- **Verbal ability** to conduct surveys and monitoring programs of the natural environment to identify sources of pollution
- **Spatial and form perception** to inspect workplaces to ensure that they do not present safety and health hazards to employees and the general public
- **Methodical interest** in handling materials to collect water samples and other materials for analyses
- **Innovative interest** in analyzing data from investigations of products and spills of hazardous chemicals that may pose a risk to human health or the natural environment, and from workplace accidents and illnesses
- **Directive interest** in speaking with employers, employees and the general public to provide information on public health, environmental protection and workplace safety; and in initiating enforcement procedures to fine or to close establishments that contravene municipal, provincial and federal regulations

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H1 Dangerous chemical substances
- H2 Biological agents
- H5* Radiation

Employment Requirements

Education/Training

4, 6, 7, R

- A bachelor's degree or college diploma in a discipline such as food science, environmental studies, chemistry or health and safety is usually required.
- In some establishments, several years of related work experience and the completion of in-house training courses may replace formal education.
- Public health inspectors employed outside Quebec require certification with the Canadian Institute of Public Health Inspectors.
- Occupational health and safety officers may require certification with the Association for Canadian Registered Safety Professionals.

Workplaces/Employers

Throughout the private and public sectors

Similar Occupations Classified Elsewhere

By-law Enforcement and Other Regulatory Officers, n.e.c. (6463)

Construction Inspectors (2264)

Engineering Inspectors and Regulatory Officers (2262)

Remarks

*Environmental Conditions

- For some occupations in this group, **Hazards H5 (Radiation)** may also apply.

2264 Construction Inspectors

Construction Inspectors inspect the construction and maintenance of new and existing buildings, bridges, highways and industrial establishments to ensure that they meet specification standards and building codes, and to monitor work-site safety.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	3	2	4	4	4	4

INTERESTS

Mld

DATA PEOPLE THINGS (DPT)

267

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	1	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L2, L3, H8

EDUCATION/TRAINING

5+, 6+, R

Examples of Job Titles

Bridge Inspector
Building Construction Inspector
Construction Inspector
Electrical Inspector
Highway Construction Inspector
Home Inspector
Housing Construction Inspector
Mine Inspector, Construction
Plumbing Inspector
Pre-Stressed Concrete Inspector
Safety Officer, Construction

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to examine plans, drawings and site layouts for new buildings, building renovations and other proposed structures
- **Verbal ability** to prepare reports for engineers and project managers
- **Form perception** to inspect construction of buildings, bridges, dams, highways and other types of construction to ensure that they conform to drawings, specifications, building codes and other applicable ordinances, and to inspect construction of sewer systems and pipelines
- **Methodical interest in handling** equipment and materials to inspect steel framework, concrete forms, reinforcing steel mesh and rods, concrete and pre-stressed concrete to ensure quality standards; and in inspecting construction sites to ensure safe working conditions
- **Innovative interest in analyzing** data from inspections of sites to verify that they conform to specifications and building codes, and from inspections and tests of electrical and plumbing installations to ensure that they comply with municipal, provincial and federal regulations
- **Directive interest in speaking** with purchasers to inspect, assess and provide reports on new and resale homes; and in inspecting existing buildings to identify and report on structural defects, fire hazards and other threats to safety

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L2 Unregulated inside climate
- L3 Outside

Hazards

H8 Dangerous locations

Employment Requirements

Education/Training

5+, 6+, R

- Completion of secondary school is required.
- College diploma in construction, civil engineering or architectural technology plus several years of related work experience or several years of experience as a qualified tradesperson in a construction trade, such as plumbing, carpentry or electrical, are required.
- Provincial certification in a skilled trade or as an engineering technologist is usually required.

Workplaces/Employers

Architectural consulting firms
 Civil engineering consulting firms
 Construction companies
 Federal government
 Municipal governments
 Provincial governments
 Self-employment

Occupational Options

Progression to construction management positions is possible with experience.

Similar Occupations Classified Elsewhere

By-law Enforcement and Other Regulatory Officers, n.e.c. (6463)

Construction Estimators (2234)

Construction Managers (0711)

Engineering Inspectors and Regulatory Officers (2262)

Inspectors in Public and Environmental Health and Occupational Health and Safety (2263)

2271.1 Pilots

Pilots fly fixed-wing aircraft and helicopters to provide air transportation and other services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	1	2	3	2	3	3

INTERESTS

OID

DATA PEOPLE THINGS (DPT)

263

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	1	3	1	2	1

ENVIRONMENTAL CONDITIONS (EC)

L4, H8, D1

EDUCATION/TRAINING

5, 6, 7, R

Examples of Job Titles

Air Pilot
Airline Pilot
Check Pilot
Chief Pilot
Helicopter Pilot
Military Pilot
Test Pilot

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to fly fixed-wing aircraft and helicopters to transport passengers and freight
- **Verbal ability** to understand and use technical terms found in manuals, charts and weather reports and to communicate with other personnel
- **Numerical ability** to maintain flight logs and complete trip reports
- **Spatial perception** to visualize speed and distance in relation to precise take-off and landing limits and procedures and, when airborne, to visualize relationship of own aircraft to other aircraft
- **Form perception** to note differences in gauge readings and indicator positions
- **Motor co-ordination** to pilot aircraft during take-off, in flight and when landing
- **Objective interest in driving - operating** fixed-wing aircraft and helicopters to provide services such as search-and-rescue operations, aerial surveying and spraying and crop dusting
- **Innovative interest in analyzing** information to test new aircraft to evaluate performance
- **Directive interest in speaking** with crews to direct their activities during flights as captain or co-pilot and in performing captain's duties as first officer, if required; and in training other pilots on new equipment and to prepare them for examinations to validate or upgrade existing licences

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 1 Relevant

Hearing

- 3 Other sound discrimination

Body Position

- 1 Sitting

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L4 In a vehicle or cab

Hazards

- H8 Dangerous locations

Discomforts

- D1 Noise

Employment Requirements

Education/Training

5, 6, 7, R

- Completion of secondary school and graduation from a certified flying or aviation school are required.
- A commercial pilot's licence is required.
- Additional licences or endorsements to fly different types of aircraft are required for pilots.
- A university degree or college diploma may be required.
- Structured training may be provided by employers.

Workplaces/Employers

Airline and air freight companies

Canadian Forces

Flying schools

Private-sector aircraft operators

Public-sector aircraft operators

2271.2 Flight Engineers (Second Officers)

Flight Engineers (Second Officers) monitor aircraft during flights and may assist in flying aircraft.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	1	2	3	2	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

273

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	1	3	1	2	1

ENVIRONMENTAL CONDITIONS (EC)

L4, H8, D1

EDUCATION/TRAINING

5, 6, 7, R

Examples of Job Titles

Co-Pilot
Flight Engineer
Second Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to monitor operation of aircraft engines and fuel consumption and other systems during flights
- **Verbal ability** to understand and use technical terms in manuals, charts and weather reports and to communicate with personnel
- **Numerical ability** to compute flight factors such as geographical positions, effects of weather and remaining fuel
- **Spatial perception** to visualize speed and distance in relation to precise take-off and landing limits and procedures and, when airborne, to visualize relationship of own aircraft to other aircraft
- **Form perception** to note differences in gauge readings and indicator positions
- **Motor co-ordination** to perform specified checks on aircraft and equipment on boarding
- **Objective interest in driving - operating** aircraft and helicopters in support of pilots and first officers
- **Methodical interest in assisting** captains and first officers when acting as second officer during flights
- **Innovative interest in analyzing** information to monitor the functioning of electrical, hydraulic, pressurization, heating and air-conditioning systems

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 1 Relevant

Hearing

- 3 Other sound discrimination

Body Position

- 1 Sitting

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L4 In a vehicle or cab

Hazards

- H8 Dangerous locations

Discomforts

- D1 Noise

Employment Requirements

Education/Training

- 5, 6, 7, R

- Completion of secondary school and graduation from a certified flying or aviation school are required.
- A commercial pilot's licence is required.
- Additional licences or endorsements to fly different types of aircraft are required for pilots.
- A university degree or college diploma may be required.
- Structured training may be provided by employers.

Workplaces/Employers

Airline and air freight companies

Canadian Forces

Flying schools

Private-sector aircraft operators

Public-sector aircraft operators

2271.3 Flying Instructors

Flying Instructors teach flying techniques and procedures to student and licensed pilots.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	1	2	3	2	3	3

INTERESTS

OMD

DATA PEOPLE THINGS (DPT)

223

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	1	3	1	2	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L4, H8

EDUCATION/TRAINING

5, 6, 7, R

Examples of Job Titles

Chief Flying Instructor

Flying Instructor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to instruct student pilots in procedures and techniques of flying aircraft and in ground-school subjects such as navigation, radio procedures and flying regulations
- **Verbal ability** to conduct training on types of aircraft used by companies
- **Numerical ability** to compute flight factors such as geographical positions, effects of weather and remaining fuel
- **Spatial perception** to visualize speed and distance in relation to precise take-off and landing limits and, when airborne, to visualize the relationship of own aircraft to other aircraft
- **Form perception** to note differences in gauge readings and indicator positions
- **Motor co-ordination** to perform the duties of airline pilots
- **Objective interest in driving - operating** aircraft; and in flying scheduled flights when required
- **Methodical interest in analyzing** information when accompanying pilots on flights to note compliance with, and infringements of, flying regulations and to prepare reports on findings
- **Directive interest in instructing** pilots in flying regulations and navigation and in training licensed pilots for additional certification

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 1 Relevant

Hearing

- 3 Other sound discrimination

Body Position

- 1 Sitting

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L4 In a vehicle or cab

Hazards

- H8 Dangerous locations

Employment Requirements

Education/Training

5, 6, 7, R

- Completion of secondary school and graduation from a certified flying or aviation school are required.
- A commercial pilot's licence is required.
- Transport Canada ratings and endorsements to provide instruction on different types of aircraft are required.
- A university degree or college diploma may be required.

Workplaces/Employers

Airline and air freight companies

Canadian Forces

Flying schools

Private-sector aircraft operators

Public-sector aircraft operators

2272.1 Air Traffic Controllers

Air Traffic Controllers direct air traffic within assigned airspace and control moving aircraft and service vehicles at airports.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	3	3	4	4	4

INTERESTS

OMD

DATA PEOPLE THINGS (DPT)

162

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	1	3	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

S, R

Examples of Job Titles

Air Traffic Control Chief

Air Traffic Controller

Tower Controller, Air Traffic

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to control flow of air traffic with in assigned airspace
- **Verbal ability** to relay meteorological, navigational and other information to pilots in flight, to alert airport emergency services when aircraft are experiencing difficulties and to report missing aircraft to search-and-rescue services
- **Numerical ability** to calculate course, speed, distance, fuel and endurance problems, changes in arrival and departure times, and allowable take-off and landing weights
- **Spatial perception** to visualize constantly changing air-traffic situations
- **Form perception** to co-ordinate movements of planes and to use instruments such as radar monitors and other visual references
- **Clerical perception** to receive and log radio messages, to keep records and to detect errors in schedules and tabulations
- **Objective interest in controlling** flow of air traffic using radar monitors, radios and other communication equipment and visual references
- **Methodical interest in co-ordinating** information to maintain radio and telephone contact with control towers, terminals and other control centers
- **Directive interest in speaking** with pilots to issue take-off and landing instructions; and in directing activities of moving aircraft and service vehicles on and near airport runways

Physical Activities

Vision
4 Total visual field

Colour Discrimination
1 Relevant

Hearing
3 Other sound discrimination

Body Position
1 Sitting

Limb Co-ordination
0 Not relevant

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
S, R

- Completion of secondary school is required.
- A basic radio-telephone operator's licence is required.
- Air traffic controllers require completion of a Transport Canada training program which includes structured in-class and on-the-job training.
- Air traffic controllers require an air traffic controller's licence.

Workplaces/Employers

Federal government (including the Canadian Forces)

Occupational Options

With experience and appropriate Transport Canada endorsements, controllers may move to airports with higher volume of air traffic.

Similar Occupations Classified Elsewhere

Railway and Marine Traffic Controllers (2275)

2272.2 Flight Dispatchers

Flight Dispatchers authorize airline flights over assigned routes.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

Old

DATA PEOPLE THINGS (DPT)

168

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	3	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, R

Examples of Job Titles

Flight Dispatcher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to analyze environmental conditions and assess aircraft for factors such as load and fuel capacities to determine flight routes
- **Verbal ability** to communicate with aircraft personnel during flights while monitoring flight progress
- **Numerical ability** to calculate flight data such as times of arrival and departure, fuel requirements and allowable take-off and landing weights
- **Spatial and form perception** to monitor flights and use navigational aids to provide pilots with essential information
- **Clerical perception** to prepare and maintain flight plans, flight logs and other reports
- **Objective interest** in monitoring flights and communicating with aircraft personnel during flights
- **Innovative interest in speaking** with flight crews before take-off on weather conditions, status of navigational facilities and airports on route
- **Directive interest in co-ordinating** information to delay or cancel flights; and in co-signing flight authorizations with aircraft captains

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

3 Other sound discrimination

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

S, R

- Completion of secondary school is required.
- A basic radio-telephone operator's licence is required.
- Flight dispatchers may require experience in air traffic control or flight operations and may require a private pilot's licence.

Workplaces/Employers

Federal government (including the Canadian Forces)

Occupational Options

With experience and appropriate Transport Canada endorsements, controllers may move to airports with higher volume of air traffic.

Similar Occupations Classified Elsewhere

Railway and Marine Traffic Controllers (2275)

2272.3 Flight Service Specialists

Flight Service Specialists provide pilots with flight information essential to aviation safety.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	2	4	4	4

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

163

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	3	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, R

Examples of Job Titles

Flight Service Specialist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide pre-flight information concerning weather, radio frequencies, terrain, airports and related data to assist pilots in preparation of flight plans
- **Verbal and numerical ability** to understand technical terms and data when forwarding plans to air traffic control units and when notifying them of aircraft destinations
- **Clerical perception** to check flight plans for completeness and accuracy
- **Objective interest in operating** radio equipment to support air traffic control operations by relaying radio requests for flight clearances, arrival and departure information and position reports
- **Innovative interest in speaking** with pilots and preparing for take-offs and landings
- **Methodical interest in co-ordinating** information to describe weather conditions, wind speed and direction and presence of local air traffic

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

3 Other sound discrimination

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

S, R

- A basic radio-telephone operator's licence is required.
- Flight service specialists require completion of a Transport Canada training program which includes structured in-class and on-the-job training.

Workplaces/Employers

Airline and air services companies

Canadian Forces

Occupational Options

With experience and appropriate Transport Canada endorsements, controllers may move to airports with higher volume of air traffic.

Similar Occupations Classified Elsewhere

Railway and Marine Traffic Controllers (2275)

2273 Deck Officers, Water Transport

Deck Officers, Water Transport, operate ships and self-propelled vessels to transport passengers and cargo on oceans and coastal and inland waters, and supervise and co-ordinate the activities of deck crews. This group also includes Canadian Coast Guard deck officers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	3	2	2	3	3	4	3

INTERESTS

OID

DATA PEOPLE THINGS (DPT)

163

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	1	3	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L4, H8

EDUCATION/TRAINING

4, S, R

Examples of Job Titles

- Deck Officer
- Ferryboat Master
- First Mate, Ship
- Maritime Surface and Subsurface Officer - Military
- Master Mariner
- Navigation Officer, Coast Guard Vessel
- Second Mate, Ship
- Ship Pilot
- Ship's Captain
- Ship's Mate
- Third Mate, Ship
- Tugboat Captain
- Watchkeeping Officer, Coast Guard Vessel

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to command and operate ships and other self-propelled vessels such as barges and oil rigs to transport passengers and cargo
- **Verbal ability** to command ships and record progress, crew activities and sea conditions in ships' logs
- **Spatial perception** to determine geographical positions using navigational instruments, maps and charts
- **Form perception** to guide vessels in rivers, canals and other confined or hazardous waterways
- **Objective interest in operating** Coast Guard vessels; to provide ice-breaking services and search-and-rescue services; and in using and maintaining vessels' navigational instruments and equipment
- **Innovative interest in co-ordinating** and supervising activities of deck crews; and in planning and executing safe navigational passage
- **Directive interest in speaking** to crews and in maintaining control over ships operating in Canadian waters, and in overseeing loading and unloading of cargo

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 1 Relevant

Hearing

- 3 Other sound discrimination

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light
-

Environmental Conditions

Location

- L4 In a vehicle or a cab

Hazards

- H8 Dangerous locations
-

Employment Requirements

Education/Training

- 4, 5, R

- Completion of secondary school is required.
 - Completion of a deck officer cadet program from an approved nautical institute
or
one-to-three years of experience as a member of a deck crew are required.
 - Deck officer certificate of competency, issued by Transport Canada, is required.
-

Workplaces/Employers

Marine transportation companies

Federal government, including the Canadian Forces and the Canadian Coast Guard

Occupational Options

Mobility among employers is possible for positions requiring the same level of certification.

Transport Canada administers a deck officer certification program, consisting of several levels. Progression from one level of certification to the next requires additional experience, training and testing.

Progression to management positions in transportation is possible with experience.

Similar Occupations Classified Elsewhere

Deck Crew, Water Transport (7433)

Engine Officers, Water Transport (2274)

Engine Room Crew, Water Transport (7434)

Fishing Masters and Officers (8261)

Shore captains (in 0713 Transportation Managers)

2274 Engineer Officers, Water Transport

Engineer Officers, Water Transport, operate and maintain main engines, machinery and auxiliary equipment aboard ships and other self-propelled vessels, and supervise and co-ordinate the activities of engine room crews.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	3	4	3	4	3

INTERESTS

OID

DATA PEOPLE THINGS (DPT)

233

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L4, H3, H8, D1

EDUCATION/TRAINING

4+, 5+, R

Examples of Job Titles

Chief Engineer
Engineer Officer
Fourth Engineer
Marine Engineer Officer
Marine Engineer Officer - Military
Second Engineer
Third Engineer
Tugboat Engineer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate main engines, machinery and auxiliary equipment such as boilers, steering and deck machinery, motors, pumps, generators and condensers
- **Verbal and numerical ability** to maintain records and prepare reports on fuel consumption and on engine performance and failures
- **Spatial perception** to visualize complete operations of marine power plants
- **Form perception** to inspect engines and other equipment to determine malfunctions
- **Motor co-ordination and manual dexterity** to adjust valves to control temperatures, pressure, flow of liquids and speed of pumps
- **Objective interest in operating** main engines, standing engine room watch and monitoring performance of engines, machinery and auxiliary equipment; and in conducting maintenance and emergency repairs
- **Innovative interest in analyzing** information to inspect engines, machinery and auxiliary equipment
- **Directive interest in supervising** and co-ordinating activities of engine room crews

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 3 Other sound discrimination

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L4 In a vehicle or cab

Hazards

- H3 Equipment, machinery, tools
- H8 Dangerous locations

Discomforts

- D1 Noise

Employment Requirements

Education/Training

4+, 5+, R

- Completion of secondary school is required.
- A marine engineer officer certificate of competency, issued by Transport Canada, is required.

Workplaces/Employers

Federal government, including the Canadian Forces and the Canadian Coast Guard

Marine transportation companies

Occupational Options

Mobility among employers is possible for positions requiring the same level of certification.

Fourth Class Marine Engineer certificate is the entry level of a four-level certification program administered by Transport Canada. Progression from one level of certification to the next requires additional experience, training and testing.

Progression to management positions in transportation is possible with experience.

Similar Occupations Classified Elsewhere

Deck Officers, Water Transport (2273)

Deck Crew, Water Transport (7433)

Engine Room Crew, Water Transport (7434)

Transportation Managers (0713)

Marine and naval engineers (in 2148 *Other Professional Engineers, n.e.c.*)

Marine mechanical engineers (in 2132 *Mechanical Engineers*)

2275.1 Railway Traffic Controllers

Railway Traffic Controllers co-ordinate passenger and freight traffic on railways.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	4	3	4	4	4

INTERESTS

MOD

DATA PEOPLE THINGS (DPT)

162

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, R

Examples of Job Titles

Chief Train Dispatcher

Rail Traffic Controller

Train Dispatch Operator

Train Dispatcher

Train Operator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate and monitor centralized traffic control (CTC) systems to co-ordinate railway traffic
- **Verbal ability** to read and understand technical manuals and interpret panel displays, traffic and company regulations
- **Numerical ability** to calculate arrival and departure times
- **Spatial and form perception** to chart train movements and monitor centralized traffic control (CTC) boards
- **Clerical perception** to record rail traffic information
- **Methodical interest in co-ordinating** information to follow railway traffic; and in receiving, recording and relaying train orders to train crews
- **Objective interest in controlling** the movements of passenger and freight trains and on-track mobile maintenance equipment
- **Directive interest in speaking - signalling** to issue train orders to operating crews and other personnel; may supervise and train other railway traffic controllers

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 4, R

- Railway traffic controllers usually require completion of secondary school and several years of experience in the railway industry.
- Up to six weeks of classroom and on-the-job training is provided to railway traffic controllers.
- Railway traffic controllers who are train dispatchers require a Level A Certificate of the Canadian Rail Operating Rules.
- Railway traffic controllers who are train operators require a Level B Certificate of the Canadian Rail Operating Rules.

Workplaces/Employers

Rail transport companies

Occupational Options

There is little mobility among traffic controlling occupations in the railway and marine sectors.

With experience and certification, train operators may progress to train dispatcher positions.

With experience, railway traffic controllers may progress to supervisory positions in rail transport operations.

Similar Occupations Classified Elsewhere

Supervisors, Railway Transport Operations (7221)

Subway traffic controllers and light rail transit dispatchers (in 7222 *Supervisors, Motor Transport and Other Ground Transit Operators*)

2275.2 Marine Traffic Controllers

Marine Traffic Controllers monitor and regulate coastal and inland marine traffic in assigned waterways.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	4	4	4

INTERESTS

OMD

DATA PEOPLE THINGS (DPT)

164

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4

Examples of Job Titles

Marine Traffic Controller

Marine Traffic Regulator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to monitor and regulate coastal and inland marine traffic in assigned waterways
- **Verbal ability** to report accidents, distress signals, navigational hazards and other emergencies to authorities
- **Spatial and form perception** to obtain positions, courses, speeds and estimated arrival times of vessels, and to monitor vessels through traffic zones
- **Objective interest in operating** radar and closed circuit monitors, remote radio systems and other telecommunication equipment to monitor vessel movements and communicate with vessels
- **Methodical interest in co-ordinating** information to maintain logs of vessel movements, sizes and structures; and in maintaining radio and telephone contact with adjacent marine control sectors and with vessels within areas of jurisdiction
- **Directive interest in speaking** with personnel of vessels to issue clearance instructions and to advise them on traffic volumes and weather conditions, and in speaking with other controllers to relay information to the next marine traffic control sectors; and in directing vessel movements

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

3 Other sound discrimination

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4

- Marine traffic controllers require completion of secondary school and several months of formal traffic controller training.

Workplaces/Employers

Canadian Coast Guard

Canal and lock authorities

Harbours

Ports

Occupational Options

There is little mobility among traffic controlling occupations in the railway and marine sectors.

Similar Occupations Classified Elsewhere

Supervisors, Railway Transport Operations (7221)

Subway traffic controllers and light rail transit dispatchers (in 7222 *Supervisors, Motor Transport and Other Ground Transit Operators*)

Health Occupations



Health Occupations

MAJOR GROUP 31 PROFESSIONAL OCCUPATIONS IN HEALTH

311 Physicians, Dentists and Veterinarians

- 3111 Specialist Physicians
 - 3111.1 Specialists in Clinical Medicine
 - 3111.2 Specialists in Laboratory Medicine
 - 3111.3 Specialists in Surgery
- 3112 General Practitioners and Family Physicians
- 3113 Dentists
- 3114 Veterinarians

312 Optometrists, Chiropractors and Other Health Diagnosing and Treating Professionals

- 3121 Optometrists
- 3122 Chiropractors
- 3123 Other Professional Occupations in Health Diagnosing and Treating
 - 3123.1 Podiatrists and Chiropodists
 - 3123.2 Naturopaths
 - 3123.3 Orthoptists
 - 3123.4 Osteopaths

313 Pharmacists, Dietitians and Nutritionists

- 3131 Pharmacists
 - 3131.1 Community Pharmacists and Hospital Pharmacists
 - 3131.2 Industrial Pharmacists
- 3132 Dietitians and Nutritionists

314 Therapy and Assessment Professionals

- 3141 Audiologists and Speech-Language Pathologists
 - 3141.1 Audiologists
 - 3141.2 Speech-Language Pathologists
- 3142 Physiotherapists
- 3143 Occupational Therapists
- 3144 Other Professional Occupations in Therapy and Assessment

315 Nurse Supervisors and Registered Nurses

- 3151 Head Nurses and Supervisors
- 3152 Registered Nurses
 - 3152.1 General Duty Registered Nurses
 - 3152.2 Occupational Health Nurses
 - 3152.3 Public Health Nurses
 - 3152.4 Psychiatric Nurses
 - 3152.5 Nursing Consultants
 - 3152.6 Nursing Researchers

MAJOR GROUP 32
TECHNICAL AND SKILLED OCCUPATIONS IN HEALTH

321 Medical Technologists and Technicians (Except Dental Health)

- 3211 Medical Laboratory Technologists and Pathologists' Assistants
 - 3211.1 Medical Laboratory Technologists
 - 3211.2 Pathologists' Assistants
- 3212 Medical Laboratory Technicians
- 3213 Animal Health Technologists
- 3214 Respiratory Therapists and Clinical Perfusionists
 - 3214.1 Respiratory Therapists
 - 3214.2 Clinical Perfusionists
- 3215 Medical Radiation Technologists
 - 3215.1 Radiography Technologists
 - 3215.2 Nuclear Medicine Technologists
 - 3215.3 Radiation Therapists
- 3216 Medical Sonographers
- 3217 Cardiology Technologists
- 3218 Electroencephalographic and Other Diagnostic Technologists, n.e.c.
 - 3218.1 Electroencephalographic Technologists
 - 3218.2 Electromyography Technologists
- 3219 Other Medical Technologists and Technicians (Except Dental Health)
 - 3219.1 Dietary Technicians
 - 3219.2 Ocularists
 - 3219.3 Prosthetists and Orthotists
 - 3219.4 Prosthetic and Orthotic Technicians

322 Technical Occupations in Dental Health Care

- 3221 Denturists
- 3222 Dental Hygienists and Dental Therapists
 - 3222.1 Dental Hygienists
 - 3222.2 Dental Therapists
- 3223 Dental Technicians

323 Other Technical Occupations in Health Care (Except Dental)

- 3231 Opticians
- 3232 Midwives and Practitioners of Natural Healing
 - 3232.1 Midwives
 - 3232.2 Acupuncturists
 - 3232.3 Chinese Medical Practitioners
 - 3232.4 Herbalists
 - 3232.5 Homeopaths
 - 3232.6 Reflexologists
 - 3232.7 Rolfers
- 3233 Registered Nursing Assistants
 - 3233.1 Registered Nursing Assistants
 - 3233.2 Operating Room Technicians

- 3234 Ambulance Attendants and Other Paramedical Occupations
- 3235 Other Technical Occupations in Therapy and Assessment
 - 3235.1 Audio Prosthetists
 - 3235.2 Audiometric Assistants
 - 3235.3 Communication Assistants
 - 3235.4 Massage Therapists
 - 3235.5 Ophthalmic Medical Assistants
 - 3235.6 Physical Rehabilitation Technicians

MAJOR GROUP 34

ASSISTING OCCUPATIONS IN SUPPORT OF HEALTH SERVICES

341 Assisting Occupations in Support of Health Services

- 3411 Dental Assistants
- 3412 Dental Laboratory Bench Workers
- 3413 Nurse Aides and Orderlies
- 3414 Other Aides and Assistants in Support of Health Services
 - 3414.1 Orthopaedic Technologists
 - 3414.2 Pharmacy Assistants
 - 3414.3 Morgue Attendants

3111.1 Specialists in Clinical Medicine

Specialists in Clinical Medicine diagnose and treat diseases and physiological and psychiatric disorders, and act as consultants to other physicians. This group includes residents and interns training to become specialist physicians in clinical medicine.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	2	2	3	3	2	2

INTERESTS

ISD

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	3	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

8+, R

Examples of Job Titles

Anaesthetist
Cardiologist
Dermatologist
Endocrinologist
Gastroenterologist
Geriatrician
Nephrologist
Neurologist
Paediatrician
Physiatrist
Psychiatrist
Radiation Oncologist
Rheumatologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to apply medical knowledge in the diagnosis and treatment of diseases and physiological and psychiatric disorders
- **Verbal ability** to use medical terminology and communicate with the public and other health care professionals
- **Innovative interest** in **co-ordinating** information about patients' conditions by ordering and interpreting laboratory tests, X-rays and other diagnostic procedures; may conduct medical research
- **Social interest** in **mentoring** patients by providing treatment for physiological and psychiatric disorders
- **Directive interest** in **precision working** to prescribe drugs and treatments, and refer patients for surgery; and in acting as consultants to other physicians

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 3 Other sound discrimination

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Employment Requirements

Education/Training

8+, R

All specialist physicians require:

- A Bachelor of Science degree or, in Quebec, completion of a college program in health science and one year of pre-medicine university studies
and
graduation from an approved medical school
and
specific specialty training (see following)
and
completion of the qualifying examinations of the Royal College of Physicians and Surgeons of Canada
and
licensing by the provincial or territorial licensing authority.
- In Quebec, membership in the professional corporation for physicians is mandatory.

Specialists in clinical medicine require:

- A one-to-two year internship (except Quebec)
and
three-to-four years of specialty residency training.
- Two years of subspecialty training may also be required.

Workplaces/Employers

Hospitals

Private practices

Occupational Options

Progression to management positions is possible with experience.

Similar Occupations Classified Elsewhere

Chiropractors (3122)

General Practitioners and Family Physicians (3112)

Managers in Health Care (0311)

Naturopathic physicians and osteopathic physicians (in 3123
Other Professional Occupations in Health Diagnosing and Treating)

3111.2 Specialists in Laboratory Medicine

Specialists in Laboratory Medicine study the nature, cause and development of diseases in humans. This group includes residents and interns training to become specialist physicians in laboratory medicine.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	2	2	3	3	2	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

8+, R

Examples of Job Titles

Anatomical Pathologist
General Pathologist
Haematological Pathologist
Medical Biochemist
Medical Microbiologist
Neuropathologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to apply medical knowledge in the investigation of the nature, cause and development of diseases in humans
- **Verbal ability** to use medical terminology and communicate with the public and other health care professionals
- **Innovative interest in mentoring** by conducting research to further medical knowledge on the structural and functional changes caused by diseases
- **Objective interest in precision working** to conduct microscopic and chemical analyses of laboratory samples and specimens
- **Directive interest in co-ordinating** the supervision of laboratory activities; and in acting as consultants to other physicians

Physical Activities

Vision
1 Close visual acuity

Colour Discrimination
1 Relevant

Hearing
2 Verbal interaction

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Hazards
H2 Biological agents

Employment Requirements

Education/Training
8+, R

All specialist physicians require:

- A Bachelor of Science degree or, in Quebec, completion of a college program in health science and one year of pre-medicine university studies
and
graduation from an approved medical school
and
specific specialty training (see following)
and
completion of the qualifying examinations of the Royal College of Physicians and Surgeons of Canada
and
licensing by the provincial or territorial licensing authority.
- In Quebec, membership in the professional corporation for physicians is mandatory.

Specialists in laboratory medicine require:

- A one-to-two year internship
and
four years of specialty residency training.

Workplaces/Employers

Hospitals

Occupational Options

Progression to management positions, such as director of laboratory medicine, is possible with experience.

Similar Occupations Classified Elsewhere

Chiropractors (3122)

General Practitioners and Family Physicians (3112)

Managers in Health Care (0311)

Naturopathic physicians and osteopathic physicians (in 3123 Other Professional Occupations in Health Diagnosing and Treating)

3111.3 Specialists in Surgery

Specialists in Surgery perform and supervise surgical procedures. This group includes residents and interns training to become specialist physicians in surgery.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	1	1	3	1	1	1

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3

EDUCATION/TRAINING

8+, R

Examples of Job Titles

Cardiovascular Surgeon
General Surgeon
Gynaecologist
Neurosurgeon
Obstetrician
Ophthalmologist
Orthopaedic Surgeon
Otolaryngologist
Plastic Surgeon
Thoracic Surgeon
Urologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to apply medical knowledge and surgical procedures in the treatment of patients
- **Verbal ability** to use medical terminology and communicate with the public and other health care professionals
- **Spatial and form perception** to acquire a knowledge of anatomy and observe physical indications of disease and damage in the body
- **Innovative interest in mentoring** by assessing patients' diseases and disorders to determine appropriate surgical procedures
- **Objective interest in precision working** to perform surgical procedures to correct physical abnormalities and deficiencies and repair injuries
- **Directive interest in co-ordinating** information to supervise surgical procedures; and in acting as consultants to other physicians

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
 - H3 Equipment, machinery, tools
-

Employment Requirements

Education/Training

8+, R

All specialist physicians require:

- A Bachelor of Science degree or, in Quebec, completion of a college program in health science and one year of pre-medicine university studies
and
graduation from an approved medical school
and
specific specialty training (see following)
and
completion of the qualifying examinations of the Royal College of Physicians and Surgeons of Canada
and
licensing by the provincial or territorial licensing authority.
- In Quebec, membership in the professional corporation for physicians is mandatory.

Specialists in surgery require:

- A one-to-two year internship
and
four-to-five years of specialty residency training.
- Two years of subspecialty training may also be required.

Workplaces/Employers

Hospitals

Occupational Options

Progression to management positions, such as chief of surgery, is possible with experience.

Similar Occupations Classified Elsewhere

Chiropractors (3122)

General Practitioners and Family Physicians (3112)

Managers in Health Care (0311)

Naturopathic physicians and osteopathic physicians (in 3123 Other Professional Occupations in Health Diagnosing and Treating)

3112 General Practitioners and Family Physicians

General Practitioners and Family Physicians diagnose and treat patients' diseases, physiological disorders and injuries. Residents and interns training to become general practitioners and family physicians are included in this group.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	2	2	3	3	2	2

INTERESTS

ISD

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3

EDUCATION/TRAINING

8, R

Examples of Job Titles

Family Physician

General Practitioner (GP)

Intern, General Practice

Medical Doctor (MD)

Resident Physician, General Practice

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to examine patients, order laboratory tests, X-rays and other diagnostic procedures, and consult with other medical practitioners to evaluate patients' health
- **Verbal ability** to communicate with patients and report births, deaths and contagious diseases to government authorities
- **Numerical ability** to prescribe and administer medications
- **Spatial and form perception** to analyze X-rays, visualize the position of internal organs and structures, and detect external abnormalities while examining patients
- **Finger dexterity** to perform and assist in routine surgery, and to inoculate and vaccinate patients
- **Manual dexterity** to deliver babies and provide pre-natal and post-natal care
- **Innovative interest in precision working** to diagnose diseases and prescribe treatments
- **Social interest in mentoring** by providing patients with health care and referring them to specialists
- **Directive interest in co-ordinating** information from the results of medical tests to advise patients on health care options

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

3 Other sound discrimination

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

H3 Equipment, machinery, tools

Employment Requirements

Education/Training

8, R

- A Bachelor of Science degree, or, in Quebec, completion of a college program in health science and one year of pre-medicine university studies
and
graduation from an approved medical school
and
one-to-two year internship or two-to-three years of family medicine residency training are required.
- Completion of the qualifying examinations of the Medical Council of Canada is required.
- Licensing by the provincial or territorial licensing authority is required.
- In Quebec, membership in the professional corporation for physicians is mandatory.

Workplaces/Employers

Clinics

Private practices

Public health facilities

Occupational Options

General practitioners and family physicians may become specialist physicians with additional training.

Similar Occupations Classified Elsewhere

*Chiropractors (3122)**Specialist Physicians (3111)*

Naturopathic physicians and osteopathic physicians (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

3113 Dentists

Dentists diagnose and treat disorders of the teeth and mouth.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	1	2	3	2	2	2

INTERESTS

IOs

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3, H5*

EDUCATION/TRAINING

8, R

Examples of Job Titles

Dentist
Endodontist
General Practice Dentist
Oral Pathologist
Oral Radiologist
Oral Surgeon
Orthodontist
Paediatric Dentist
Periodontist
Prosthodontist
Public Health Dentist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to diagnose disease, injury and decay, and to plan appropriate treatment by examining patients' teeth, gums and surrounding tissues
- **Verbal ability** to write fabrication instructions and prescriptions for use by denturists and dental technicians, and to supervise dental hygienists, dental assistants and other staff
- **Numerical ability** to administer local and general anaesthetics, and to fill cavities with amalgam, silver, gold and other materials
- **Spatial and form perception** to interpret X-rays and identify abnormalities such as diseases, injuries and malformation of the teeth, gums and other oral structures
- **Motor co-ordination and finger dexterity** to perform oral surgery, periodontal surgery and other treatments
- **Manual dexterity** to restore, extract and replace diseased and decayed teeth, and to clean teeth
- **Innovative interest in co-ordinating** information gathered from examining patients' teeth, gums and surrounding tissue to design bridgework, fit dentures and provide appliances to correct abnormal positioning of the teeth and jaws
- **Objective interest in precision working** with dental and surgical instruments
- **Social interest in mentoring** patients by instructing them on oral hygiene to prevent dental problems

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
- H3 Equipment, machinery, tools
- H5* Radiation

Employment Requirements

Education/Training

8, R

- One-to-four years of pre-dental university studies, or, in Quebec, completion of a college program in sciences
and
a university degree from a recognized dental program are required.

- Licensing by a provincial or territorial governing body is required.
- Licensing for specializations is required.
- In Quebec, membership in the professional corporation for dentists is mandatory.

Workplaces/Employers

Clinics

Hospitals

Private practices

Public health facilities

Universities

Occupational Options

Dentists in general practice can move into a specialized practice through advanced training.

Certification by the National Dental Examining Board of Canada entitles dentists or graduates of approved dental programs to practise dentistry in any province in Canada provided requirements set out by the provincial and territorial licensing authorities are met.

Similar Occupations Classified Elsewhere

Dental Assistants (3411)

Dental Hygienists and Dental Therapists (3222)

Dental Technicians (3223)

Denturists (3221)

Remarks

Dentists may specialize in such areas as oral and maxillofacial surgery, orthodontics, paediatric dentistry, periodontics, endodontics, prosthodontics, oral pathology, oral radiology or public health dentistry.

* Environmental Conditions

- For some occupations in this group, Hazards H5 (Radiation) may also apply.

3114 Veterinarians

Veterinarians prevent, diagnose and treat diseases and disorders in animals, and advise clients on the feeding, hygiene, housing and general care of animals.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	1	2	3	2	2	2

INTERESTS

IOs

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	3	2	1	2*

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H2, H3, D3

EDUCATION/TRAINING

8+, R

Examples of Job Titles

Small Animal Veterinary Specialist
Veterinarian
Veterinary Inspector
Veterinary Pathologist
Veterinary Physiologist
Zoo Veterinarian

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability and spatial perception** to diagnose diseases and abnormal conditions in animals through physical examinations and laboratory tests
- **Verbal ability** to advise clients on feeding, housing, breeding, hygiene and general care of animals; may supervise animal health technologists and animal care workers
- **Motor co-ordination and finger dexterity** to inoculate animals for disease prevention and to perform surgery
- **Manual dexterity** to set bones and dress wounds of sick and injured animals
- **Innovative interest in co-ordinating** information to diagnose and treat sick and injured animals, and to prescribe medications; may conduct veterinary research, co-ordinate the operations of animal hospitals, clinics and mobile services to farms, and may enforce government regulations in disease control and food production including animal and animal-based food inspection
- **Objective interest in precision working** with scientific instruments and medical equipment to diagnose diseases and perform surgery
- **Social interest in mentoring** by treating sick and injured animals and advising clients on proper care of animals

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 3 Other sound discrimination

Body Position

- 2 Standing and/or walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2* Light
-

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Hazards

- H2 Biological agents
- H3 Equipment, machinery, tools

Discomforts

- D3 Odours
-

Employment Requirements

Education/Training

8+, R

- Two-to-four years of pre-veterinary university studies or, in Quebec, completion of a college program in health science *and* a four-year university degree in veterinary medicine *and* completion of national certification examinations are required.
 - Provincial licensing is required.
 - In Quebec, membership in the professional corporation for veterinarians is mandatory.
 - Entry into research positions may require post-graduate study.
-

Workplaces/Employers

Animal clinics
Government
Industry
Laboratories
Private practices

Occupational Options

The duties of veterinarians performing research may be similar to those of some biologists.

Similar Occupations Classified Elsewhere

Animal Health Technologists (3213)

Biologists and Related Scientists (2121)

Remarks

* Physical Activities

- For some occupations in this group, Strength 3 (Medium) may also apply.

3121 Optometrists

Optometrists examine patients' eyes, prescribe and fit eyeglasses and contact lenses, and recommend treatments such as exercises to correct vision problems and ocular disorders.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	2	2	3	3	3	3

INTERESTS

OSD

DATA PEOPLE THINGS (DPT)

264

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8, R

Examples of Job Titles

Doctor of Optometry (OD)

Optometrist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to examine patients' eyes and conduct tests using instruments to determine visual efficiency
- **Verbal ability** to prescribe eyeglasses and contact lenses, and to prescribe treatment (excluding surgery) to conserve, improve and correct vision and other ocular disorders
- **Spatial and form perception** to interpret readings from test results to identify defects in the eyes and surrounding tissues
- **Objective interest in operating** specialized instruments such as ophthalmoscopes and biomicroscopes to conduct eye examinations
- **Social interest in speaking** to patients about contact lens use and care, vision care and hygiene, lighting arrangements and other issues regarding the safety and protection of the eyes
- **Directive interest in analyzing** data collected from eye examinations to determine the type of prescription required, and to refer patients to ophthalmologists and other physicians and surgeons when ocular and other diseases are found

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
-

Employment Requirements

Education/Training

8, R

- One-to-three years of college or university, with a concentration in mathematics and science courses and a four-year university program in optometry are required.
 - Licensing by the provincial or territorial governing body is required.
 - In Quebec, membership in the professional corporation for optometrists is mandatory.
-

Workplaces/Employers

Clinics

Community health centers

Private practices

Similar Occupations Classified Elsewhere

Orthoptists (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

Opticians (3231)

Ophthalmologists (in 3111 *Specialist Physicians*)

Remarks

Optometrists may specialize in fitting visual aids for people who are partially blind, fitting contact lenses or correcting special vision problems.

3122 Chiropractors

Chiropractors diagnose and treat patients' disorders of the spine and other body joints by adjusting the spinal column or through other corrective manipulation.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	2	4	2	2	2

INTERESTS

ISM

DATA PEOPLE THINGS (DPT)

104

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	4	2	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H5

EDUCATION/TRAINING

8, R

Examples of Job Titles

Chiropractor

Chiropractic Doctor

Doctor of Chiropractic (D.C.)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to analyze case histories, observe and examine patients, and perform and order tests to diagnose conditions
- **Verbal ability** to order diagnostic tests and question patients to diagnose extent of disorders of the spine and other body joints
- **Spatial perception** to read and interpret X-rays and other test results, and to visualize the arrangement of internal organs and structures
- **Form perception** to identify visually spinal damage and bone misalignment when examining patients
- **Motor co-ordination** to correct abnormal musculoskeletal and joint conditions with therapeutic heat, light and massage treatments
- **Finger and manual dexterity** to perform corrective manipulations of the spinal column and other joints
- **Innovative interest in co-ordinating** information from examinations and tests to determine the effectiveness of various treatments such as heat, light and massage
- **Social interest in mentoring** patients by advising on corrective exercises, lifestyle and nutrition
- **Methodical interest in manipulating** the spinal column, joints and therapeutic medical equipment according to established practices and procedures

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

4 Other body positions

Limb Co-ordination

2 Multiple limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H5 Radiation

Employment Requirements

Education/Training

8, R

- Two years of university undergraduate studies in sciences *and* completion of a four-year program at an accredited chiropractic college *and* completion of the examinations of the Canadian Chiropractic Examining Board and of the provincial licensing body are required.
- Provincial licensing is required.
- In Quebec, membership in the professional corporation for chiropractors is mandatory.

Workplaces/Employers

Private practices

Similar Occupations Classified Elsewhere

Chiropractic aides (in 6631
Elemental Medical and Hospital Assistants)

3123.1 Podiatrists and Chiropodists

Podiatrists and Chiropodists treat diseases, deformities and injuries of the human foot.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	2	4	3	3	3

INTERESTS

IMO

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3

EDUCATION/TRAINING

6, 7+, R

Examples of Job Titles

Chiropodist
Foot Specialist
Podiatrist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to diagnose and treat diseases, deformities and injuries of the foot
- **Verbal ability** to prescribe corrective footwear and refer patients to physicians and other medical specialists after observing symptoms in feet and legs that indicate systemic disorders
- **Spatial and form perception** to interpret X-rays and other test results to diagnose disorders and diseases of the foot
- **Innovative interest in mentoring** patients by providing treatment of disorders and proper foot care using braces, casts, shields, splints, physical therapy, medications and surgery
- **Methodical interest in co-ordinating** information obtained through urinalyses, blood tests and X-ray examinations to diagnose tumours, ulcers, fractures, skin and nail diseases and deformities of the foot
- **Objective interest in precision working** with surgical tools and mechanical and electrical techniques to treat conditions such as corns, calluses, ingrown nails, foot imbalance and flat and weak feet

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

- 6, 7+, R

- Podiatrists require completion of a four-year degree program in podiatric medicine and a one-to-three year internship. These qualifications are obtained abroad.
- Chiropodists usually require completion of a degree program in chiropody, obtained abroad. In some provinces, completion of a three-year college diploma program in chiropody is also accepted.
- A licence for podiatrists and chiropodists is required in New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. The title given official recognition varies among provinces, with podiatrist being more widely recognized.
- In Quebec, membership in the professional corporation for podiatrists is mandatory.

Workplaces/Employers

Clinics

Hospitals

Private practices

Similar Occupations Classified Elsewhere

Chiropractors (3122)

Specialist Physicians (3111)

General Practitioners and Family Physicians (3112)

Midwives and Practitioners of Natural Healing (3232)

3123.2 Naturopaths

Naturopaths use natural healing methods to treat patients' diseases and disorders.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	4	3	3	3

INTERESTS

IMD

DATA PEOPLE THINGS (DPT)

104

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3

EDUCATION/TRAINING

8, R

Examples of Job Titles

Naturopath

Naturopathic physician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to diagnose patients' diseases and disorders and use natural methods of healing in their treatment
- **Verbal ability** to determine disorders by interviewing and questioning patients regarding symptoms, and to discuss treatments
- **Innovative interest in co-ordinating** information obtained by observing, interviewing and examining patients to diagnose and treat disorders and illnesses with natural methods of healing such as herbal medicines, biochemical therapy, nutritional therapy, homeopathy and psychological therapy
- **Methodical interest in operating** equipment to perform acupuncture and hydrotherapy; and in performing acupressure, reflexology and spinal manipulation
- **Directive interest in mentoring** patients by prescribing treatments and diets that include natural foods and herbs, corrective exercises and other natural methods of healing

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

H3 Equipment, machinery, tools

Employment Requirements

Education/Training

8, R

- A university degree in science is required.
- Completion of a university program in naturopathic medicine, obtained abroad or a four-year program in naturopathic medicine from a private institute is required.
- A licence is required in Ontario, Manitoba, Saskatchewan and British Columbia.

Workplaces/Employers

Clinics

Hospitals

Private practices

Similar Occupations Classified Elsewhere

*Chiropractors (3122)**Specialist Physicians (3111)**General Practitioners and Family Physicians (3112)**Midwives and Practitioners of Natural Healing (3232)*

3123.3 Orthoptists

Orthoptists assist ophthalmologists in diagnosing and treating eye disorders.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	2	4	4	4	4

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6, 7, R

Examples of Job Titles

Orthoptists

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist ophthalmologists in diagnosing and treating eye disorders
- **Verbal ability** to discuss prescribed treatments, such as eye exercises, with patients
- **Form perception** to measure and assess defective binocular vision and abnormal eye movement
- **Innovative interest in compiling** records of patients' progress and conditions; and in performing tests to assist in the diagnosis and treatment of defective binocular vision
- **Objective interest in operating** eye-testing equipment for the purpose of measuring visual acuity, eye-motor movement and focusing ability of eyes, separately and jointly
- **Directive interest in speaking** with patients and parents of young patients on the use of corrective methods at home; and in prescribing treatments such as exercises and patching regimens

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, 6, 7, R

- Two years of post-secondary education with a specialization in science *and* a two-year hospital-based training program in orthoptics and supervised practical training are required.
- Certification with the Canadian Orthoptic Council is available but is only required in Quebec.

Workplaces/Employers

Clinics

Hospitals

Private practices

Similar Occupations Classified Elsewhere*Chiropractors (3122)**Specialist Physicians (3111)**General Practitioners and Family Physicians (3112)**Midwives and Practitioners of Natural Healing (3232)*

3123.4 Osteopaths

Osteopaths diagnose and treat disorders and injuries of the musculoskeletal, circulatory and nervous systems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	1	2	4	2	1	1

INTERESTS

IMO

DATA PEOPLE THINGS (DPT)

104

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3

EDUCATION/TRAINING

8+, R

Examples of Job Titles

Osteopath

Osteopathic physician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to diagnose disorders and injuries of the musculoskeletal, circulatory and nervous systems
- **Verbal ability** to determine the extent of disorders by interviewing and questioning patients regarding symptoms
- **Numerical ability** to prescribe medications
- **Spatial and form perception** to interpret X-rays and results of medical tests and determine the extent of disorders by observing and examining patients
- **Motor co-ordination and finger and manual dexterity** to perform surgery, medical procedures and manipulative therapy
- **Innovative interest in mentoring** by providing treatment for patients' disorders and advising them on corrective and therapeutic methods
- **Methodical interest in co-ordinating** information on patients' conditions by performing examinations and analyzing results of medical tests
- **Objective interest in operating** equipment to correct disorders of the musculoskeletal, circulatory and nervous systems

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

8+, R

- A university degree is required.
- A four-year program in osteopathic medicine *and* one year of internship are required. These qualifications are obtained abroad.
- A licence is required in Quebec, Ontario, Saskatchewan, Alberta and British Columbia.

Workplaces/Employers

Clinics

Hospitals

Private practices

Occupational Options

Osteopaths may obtain a licence as general practitioners.

Similar Occupations Classified Elsewhere

Chiropractors (3122)

Specialist Physicians (3111)

General Practitioners and Family Physicians (3112)

Midwives and Practitioners of Natural Healing (3232)

3131.1 Community Pharmacists and Hospital Pharmacists

Community Pharmacists and Hospital Pharmacists compound and dispense prescribed pharmaceuticals. This group includes pharmacists who are managers of pharmacies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	2	3	3	3	3

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

021

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	2	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, R

Examples of Job Titles

Clinical Pharmacist
Community Pharmacist
Druggist
Hospital Pharmacist
Pharmacist
Retail Pharmacist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to compound and dispense prescribed pharmaceutical products
- **Verbal ability** to advise customers on the selection and use of non-prescription medications
- **Numerical ability** to calculate, measure and mix quantities of drugs and other ingredients, to fill appropriate containers with correct quantities, and to check prescriptions for proper dosages
- **Form perception** to make visual comparisons and discriminations when preparing pharmaceutical compounds
- **Clerical perception** to maintain medication profiles of customers including registry of poisons, narcotics and other controlled drugs
- **Methodical interest in precision working** to dispense prescribed drugs to customers and other health care professionals, and to ensure proper storage of vaccines, serums, biologicals and other pharmaceutical products for the purpose of preventing deterioration; and in ordering and maintaining stock of pharmaceutical supplies
- **Innovative interest** in synthesizing pharmaceutical products; and in advising customers and health care professionals on the administration, uses and effects of medications, drug incompatibilities and contra-indications
- **Directive interest in instructing** pharmacy staff; may supervise and co-ordinate the activities of other pharmacists, pharmacy assistants, pharmacy technicians and other staff

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 2 Standing and/or walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

7+, R

- A Bachelor of Science degree in pharmacy is required.
- Community and hospital pharmacists also require practical training under the supervision of a pharmacist.
- Licensing is required in all provinces and territories for community and hospital pharmacists.
- In Quebec, membership in the professional corporation for pharmacists is mandatory.

Workplaces/Employers

Community pharmacies

Hospital pharmacies

Occupational Options

Experience as a pharmacist is usually required for managers of pharmacies or of pharmacy departments.

Similar Occupations Classified Elsewhere

Chemists (2112)

Pharmaceutical sales representatives (in 6221 *Technical Sales Specialists, Wholesale Trade*)

Pharmacologists (in 2121 *Biologists and Related Scientists*)

Pharmacy assistants (in 3414 *Other Aides and Assistants in Support of Health Services*)

3131.2 Industrial Pharmacists

Industrial Pharmacists participate in the research, development and manufacture of pharmaceutical products.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	2	3	3	3	3

INTERESTS

IMD

DATA PEOPLE THINGS (DPT)

061

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H1

EDUCATION/TRAINING

7, R

Examples of Job Titles

Clinical Pharmacist

Industrial Pharmacist

Pharmacist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to participate in the research, development and manufacture of pharmaceutical products
- **Verbal ability** to develop information materials concerning the uses and properties of drugs
- **Numerical ability** to test new drug products for stability, and to determine their absorption and elimination patterns
- **Form perception** to make visual comparisons and discriminations when preparing pharmaceutical compounds
- **Innovative interest in synthesizing** drug products by participating in basic research for the development of new drugs and formulating new drug products developed by medical researchers
- **Methodical interest in precision working** to control the quality of drug products during production to ensure that they meet standards of potency, purity, uniformity, stability and safety
- **Directive interest in speaking** to co-ordinate clinical investigations of new drugs; and in evaluating labelling, packaging and advertising of drug products

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H1 Dangerous chemical substances

Employment Requirements

Education/Training

7, R

- A Bachelor of Science degree in pharmacy is required.
- In Quebec, membership in the professional corporation for pharmacists is mandatory.

Workplaces/Employers

Government departments and agencies

Pharmaceutical firms

Occupational Options

Experience as a pharmacist is usually required for managers of pharmacies or of pharmacy departments.

Similar Occupations Classified Elsewhere

Chemists (2112)

Pharmaceutical sales representatives (in 6221 *Technical Sales Specialists, Wholesale Trade*)

Pharmacologists (in 2121 Biologists and Related Scientists)

Pharmacy assistants (in 3414 *Other Aides and Assistants in Support of Health Services*)

3132 Dietitians and Nutritionists

Dietitians and Nutritionists plan, organize, conduct and supervise programs in nutrition, diet and food service.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	4	4	4	4

INTERESTS

DIS

DATA PEOPLE THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+, R

Examples of Job Titles

Administrative Dietitian
Clinical Dietitian
Community Dietitian
Consultant Dietitian
Dietary Supervisor
Dietitian
Nutrition and Dietetics Researcher
Nutritionist
Public Health Nutritionist
Registered Dietitian
Registered Nutritionist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop, administer and supervise nutrition, food preparation and service programs in hospitals, nursing homes, schools and company cafeterias
- **Verbal ability** to participate on health care teams in order to determine nutritional needs of patients, to plan therapeutic diets and menus, and to prepare technical publications concerning food and nutrition
- **Numerical ability** to calculate the nutritional value of foods, and to calculate food costs
- **Directive interest in co-ordinating** and developing educational materials for students and the general public; and in planning, evaluating and conducting nutrition education programs
- **Innovative interest** in studying and analyzing current scientific nutritional studies, and in conducting research to improve the nutritional value, taste, appearance and preparation of food
- **Social interest in consulting** to provide nutrition counselling to health professionals, dietetic interns, community groups, government, the media and individuals

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+, R

- Dietitians require a master's or bachelor's degree in dietetics, nutrition or a related field such as food and nutritional science or biochemistry
and
one-to-two years of supervised practical training
and
registration with the Canadian Dietetic Association or a provincial counterpart.

- In Quebec, membership in the professional corporation for dietitians is mandatory.
- Nutritionists usually require the same education and training as dietitians.
- Registration with the Canadian Dietetic Association or a provincial counterpart is available for nutritionists who have the same education and practical training as dietitians.

Workplaces/Employers

Educational institutions

Government

Hospitals

Industry

Nursing homes

Self-employment

Occupational Options

Dietitians and nutritionists may progress to management positions through additional experience.

Similar Occupations Classified Elsewhere

Food Service Supervisors (6212)

Home economists (in 4164 *Social Policy Researchers, Consultants and Program Officers*)

Managers of dietetic or nutrition departments (in 0311 *Managers in Health Care*)

Remarks

Dietitians and nutritionists may specialize in such areas as administrative dietetics, clinical dietetics, community dietetics or research dietetics.

3141.1 Audiologists

Audiologists diagnose, evaluate and treat hearing disorders.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

OIS

DATA PEOPLE THINGS (DPT)

104

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8, R

Examples of Job Titles

Audiologist
Certified Audiologist
Clinical Audiologist
Educational Audiologist
Research Audiologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to diagnose, evaluate and treat hearing disorders, and to conduct related research
- **Verbal ability** to instruct students and other health care personnel in audiology practices
- **Objective interest** in operating equipment to administer audiometric tests to patients in order to diagnose and evaluate the degree and type of hearing impairments
- **Innovative interest** in co-ordinating research programs and conducting research related to hearing; and in consulting with physicians, nurses, psychologists and other health care personnel to help plan treatment programs
- **Social interest** in mentoring patients by planning and implementing rehabilitation programs including selection and fitting of hearing aids, speech (lip) reading and counselling

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

3 Other sound discrimination

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8, R

- Audiologists require a bachelor's degree in communication disorders, psychology, linguistics or a related field.
- Audiologists require a master's degree in audiology.
- Certification with the Canadian Association of Speech-Language Pathologists and Audiologists may be required.
- Provincial licensing is required for audiologists in New Brunswick, Quebec and Manitoba.
- In Quebec, membership in the professional corporation for speech therapists and audiologists is mandatory.

Workplaces/Employers

Community health agencies

Educational institutions

Hospitals

Private practices

Occupational Options

Progression into management positions, such as chief audiologist, is possible with experience.

Similar Occupations Classified Elsewhere

Managers in Health Care (0311)

Audiology and speech-language technical and assisting occupations (in 3235 *Other Technical Occupations in Therapy and Assessment*)

3141.2 Speech-Language Pathologists

Speech-Language Pathologists diagnose, evaluate and treat speech, language and voice disorders.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

MIS

DATA PEOPLE THINGS (DPT)

108

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8, R

Examples of Job Titles

Clinical Pathologist, Speech-Language

Language Pathologist

Research Pathologist, Speech-Language

Speech and Hearing Clinician

Speech-Language Pathologist

Speech Therapist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to diagnose, evaluate and treat speech, language and voice disorders, and to conduct related research
- **Verbal ability** to use terminology associated with communication therapy, and to provide speech training to correct communication problems
- **Methodical interest** in administering tests and observing patients to diagnose and evaluate speech, language and voice disorders
- **Innovative interest** in co-ordinating research programs; and in conducting research on speech and other communication disorders and on the development and design of diagnostic procedures and devices
- **Social interest** in mentoring patients by planning and implementing remedial programs to correct speech, language and voice disorders

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8, R

- Speech-language pathologists require a bachelor's degree in communication disorders, psychology, linguistics or a related field.
- Speech-language pathologists usually require a master's degree in speech-language pathology.
- Certification with the Canadian Association of Speech-Language Pathologists and Audiologists may be required.
- Provincial licensing is required for speech-language pathologists in New Brunswick, Quebec and Manitoba.
- In Quebec, membership in the professional corporation for speech therapists and audiologists is mandatory.

Workplaces/Employers

Community health agencies

Educational institutions

Hospitals

Private practices

Occupational Options

Progression into management positions, such as director of speech-language pathology, is possible with experience.

Similar Occupations Classified Elsewhere

Managers in Health Care (0311)

Audiology and speech-language technical and assisting occupations (in 3235 *Other Technical Occupations in Therapy and Assessment*)

3142 Physiotherapists

Physiotherapists plan and carry out individually designed programs of physical treatment to maintain, improve and restore physical functioning, alleviate pain and prevent physical dysfunction in patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	3	3

INTERESTS

MIS

DATA PEOPLE THINGS (DPT)

124

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	4	2	3

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

Physical Therapist
Physiotherapist
Registered Physiotherapist
Research Physiotherapist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess patients' physical abilities through evaluative procedures such as functional-ability tests, and to plan programs of physiotherapy
- **Verbal ability** to confer with other health care professionals and patients
- **Clerical perception** to maintain clinical and statistical records
- **Methodical interest in operating** electrotherapeutic and other mechanical equipment; and in implementing programs including therapeutic exercise, manipulations, massage, hydrotherapy and education
- **Innovative interest in co-ordinating**, developing and implementing health promotion programs for patients, staff and the community; may conduct research in physiotherapy
- **Social interest in instructing** patients in therapeutic procedures to be continued at home; may act as physiotherapy consultants and educators

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

4 Other body positions

Limb Co-ordination

2 Multiple limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, R

- A university degree in physiotherapy and a period of supervised practical training are required.
- Registration with provincial and territorial regulatory boards is required to practise physiotherapy.
- In Quebec, membership in the professional corporation for physiotherapists is mandatory.

Workplaces/Employers

Clinics

Extended care facilities

Hospitals

Private practices

Rehabilitation centers

Occupational Options

Progression to management positions, such as director of physiotherapy, is possible through experience

Similar Occupations Classified Elsewhere

Directors of physiotherapy (in 0311 *Managers in Health Care*)

Physical rehabilitation technicians (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Remarks

Physiotherapists may focus their practice in particular clinical areas such as neurology, oncology, rheumatology, orthopaedics, obstetrics, paediatrics, geriatrics or in the treatment of patients with cardiovascular and cardiopulmonary disorders, burns or sports injuries.

3143 Occupational Therapists

Occupational Therapists plan and carry out individually designed programs of activity for patients with physical or mental health problems to enhance their ability to care for themselves and engage in work and recreational pursuits.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	3	3

INTERESTS

SIM

DATA PEOPLE THINGS (DPT)

124

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	4	2	3

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, R

Examples of Job Titles

Clinical Occupational Therapy Specialist

Community Occupational Therapist

Occupational Therapist (O.T.)

Research Occupational Therapist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to observe patients, consult physicians' prognoses to assess patients' emotional and physical capacities, and plan treatment programs
- **Verbal ability** to communicate with other health care personnel and patients; may act as occupational therapy consultants and educators
- **Clerical perception** to maintain clinical and statistical records
- **Social interest in consulting** with health care personnel and patients to design individualized treatment programs; may advise on health risks in the workplace and participate in the development of pre-retirement and other programs to prevent physical and mental health problems
- **Innovative interest in co-ordinating**, developing and implementing treatment programs and evaluating their progress; may conduct research in occupational therapy
- **Methodical interest in manipulating** and maintaining equipment used in programs involving manual and creative arts, industrial and vocational skills, and recreational activities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

4 Other body positions

Limb Co-ordination

2 Multiple limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, R

- A university degree in occupational therapy or rehabilitation, including a period of supervised practical training *and* completion of the national certification examination are required.
- Licensing or registration by the provincial regulatory board is required.
- In Quebec, membership in the professional corporation for occupational therapists is mandatory.
- Occupational therapists may specialize in a particular area through additional training or experience.

Workplaces/Employers

Health care institutions

Schools

Social agencies

Occupational Options

Occupational therapists may progress to management positions, such as director of occupational therapy, through experience.

Similar Occupations Classified Elsewhere

Directors of occupational therapy
(in 0311 *Managers in Health Care*)

Remarks

Occupational therapists may specialize in working with a specific age group, such as children or the elderly, or with clients who have a specific disability such as arthritis or schizophrenia.

3144 Other Professional Occupations in Therapy and Assessment

This group includes specialized therapists not elsewhere classified who use techniques such as remedial gymnastics and art, athletic, dance, music and recreational therapy to aid patients in the treatment of mental and physical disabilities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	4	4	4	4

INTERESTS

SIM

DATA PEOPLE THINGS (DPT)

104

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3*	1*	1*

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, 8+, R

Examples of Job Titles

Art Therapist
Art Therapy Consultant
Athletic Therapist
Dance Therapist
Dance/Movement Therapy Researcher
Music Therapist
Music Therapy Researcher
Recreational Therapist
Remedial Gymnast

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to prepare, either alone or in consultation with other health care professionals, individualized treatment plans for patients
- **Verbal ability** to record observations, write progress reports and consult with other health care professionals to evaluate treatment plans
- **Social interest in mentoring** patients by advising them on how to deal with their mental and physical abilities, and by interviewing patients and reviewing reports from physicians, psychiatrists, counsellors, teachers and others to determine patients' current and potential functioning levels
- **Innovative interest in co-ordinating**, initiating, designing and implementing specialized therapy programs for patients and community organizations; and in observing and analyzing patients during treatment sessions; may conduct research in field of specialization
- **Methodical interest in operating** - manipulating equipment and following procedures to implement treatment plans by carrying out specialized therapy sessions employing techniques such as remedial gymnastics or art, athletic, dance, music or recreational therapy

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
3* Sitting, standing, walking

Limb Co-ordination
1* Upper limb co-ordination

Strength
1* Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
6+, 7+, 8+, R

- Athletic therapists usually require a bachelor's degree in physical recreation with a specialization in sports medicine or a college program in sports injury management.
- Art therapists require a graduate degree in art therapy.
- Dance therapists require a bachelor's degree in psychology or dance/movement therapy or an approved graduate program in dance/movement therapy.

- Music therapists usually require a bachelor's degree or two-year college program in music therapy.

- Recreational therapists usually require a bachelor's degree or college program in recreation with a specialization in therapeutic recreation.

- Remedial gymnasts require completion of an approved college program in remedial gymnastics.

- Supervised practical training is usually required for occupations in this group.

- Creativity or technical ability in the field of specialization is usually required.

- Accreditation or registration with the appropriate national professional association or its provincial counterpart may be required.

Workplaces/Employers

Clinics
Day-care facilities
Educational institutions
Hospitals
Nursing homes
Prisons
Private practices
Recreational centers
Rehabilitation centers

Occupational Options

There is no mobility among the different occupations in this group.

Similar Occupations Classified Elsewhere

Occupational Therapists (3143)

Physiotherapists (3142)

Technical assistants in therapy and assessment (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Remarks

* Physical Activities

- For some occupations in this group:

Body Position 4 (Other body positions), Limb Co-ordination 2 (Multiple limb co-ordination) and Strength 2 or 3 (Light or Medium) may also apply.

3151 Head Nurses and Supervisors

Head Nurses and Supervisors supervise and co-ordinate the activities of registered nurses, nursing assistants and other nursing personnel in the provision of patient care.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

134

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+, R

Examples of Job Titles

Head Nurse
Nursing Care Co-ordinator
Nursing Supervisor
Nursing Unit Administrator
Patient Care Co-ordinator
Psychiatric Nursing Supervisor
Public Health Nursing Supervisor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to ensure quality nursing care is provided and appropriate administrative procedures are followed; may provide direct patient care
- **Verbal ability** to direct, guide, instruct and train nursing staff
- **Directive interest in supervising** registered nurses, nursing assistants and other nursing personnel; and in assisting in the establishment of policies and procedures
- **Methodical interest in operating** medical and hospital equipment required for patient care; and in administering budgets and ensuring that supplies and equipment are available
- **Social interest in co-ordinating** nursing services in conjunction with other health services; and in assisting in the selection, evaluation and professional development of nursing personnel

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+, R

- Completion of a university, college or other approved registered nursing program is required.
- Courses in management studies such as the Nursing Unit Administration Course offered by the Canadian Hospital Association or other degree, diploma, certificate or studies in management or administration may be required.
- Registration and licensing as a registered nurse by a provincial or territorial governing body or, in Manitoba, Saskatchewan, Alberta and British Columbia, provincial licensing as a registered psychiatric nurse (R.P.N.) is required.
- In Quebec, membership in the professional corporation for nurses is mandatory.
- Experience as a registered nurse is required.

Workplaces/Employers

Clinics

Hospitals

Nursing agencies

Nursing homes

Occupational Options

Progression to management positions, such as director of nursing, is possible with experience.

Similar Occupations Classified Elsewhere

Directors of nursing (in 0311
Managers in Health Care)

3152.1 General Duty Registered Nurses

General Duty Registered Nurses care for patients, deliver health-education programs and provide consultative nursing services. This group includes graduates of a nursing program who are awaiting registration (graduate nurses).

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	4	3	3	3

INTERESTS

SMD

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, D3

EDUCATION/TRAINING

S, 6, 7, R

Examples of Job Titles

Critical Care Nurse
Graduate Nurse
Private Duty Nurse
Registered Nurse (R.N.)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide direct nursing care to patients, deliver health-education programs and provide consultative services regarding issues relevant to the practice of nursing
- **Verbal ability** to understand medical terminology, follow doctors' prescriptions and communicate with administrators, medical personnel and patients
- **Spatial perception** to visualize body structures and respiratory, circulatory and nervous systems
- **Form perception** to detect patients' conditions and reactions to drugs and treatments, notice any significant changes in patients' general appearance and monitor medical equipment
- **Motor co-ordination and finger dexterity** to use hypodermic needles, blood-pressure gauges and other medical instruments
- **Manual dexterity** to bathe patients, dress wounds and perform other nursing duties
- **Social interest in speaking** to consult with other members of a health care team to assess, plan, implement and evaluate patient care
- **Methodical interest in compiling** information to monitor, record and report symptoms and changes in patients' conditions, and to administer medications and treatments as prescribed by physicians; and in assisting with surgery and other medical procedures
- **Directive interest in operating** medical equipment; and in supervising registered nursing assistants and other nursing staff

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Discomforts

- D3 Odours

Employment Requirements

Education/Training

5, 6, 7, R

- Completion of a university, college or other approved registered nursing program is required.
- Additional academic training or experience is required to specialize in a specific area of nursing.
- Licensing by a provincial or territorial governing body is required.
- In Quebec, membership in the professional corporation for nurses is mandatory.

Workplaces/Employers

Clinics

Extended-care facilities

Hospitals

Nursing homes

Private homes

Rehabilitation centers

Self-employment

Occupational Options

The qualifications of nurses trained exclusively as registered psychiatric nurses (R.P.N.) are recognized only in Manitoba, Saskatchewan, Alberta and British Columbia.

In all provinces, registered nurses (R.N.) may work as psychiatric nurses without separate licensing as a registered psychiatric nurse.

Registered nurses may progress to supervisory positions with experience.

Similar Occupations Classified Elsewhere

Head Nurses and Supervisors (3151)

Registered Nursing Assistants (3233)

Licensed practical nurse (in 3233
Registered Nursing Assistants)

Remarks

Registered nurses may specialize in areas such as surgery, obstetrics care, psychiatric care, critical care, paediatrics, geriatrics, community health, occupational health, emergency care, rehabilitation or oncology.

3152.2 Occupational Health Nurses

Occupational Health Nurses are registered nurses who develop and implement health-education programs and provide direct nursing care in businesses and industry. This group includes graduates of a nursing program who are awaiting registration (graduate nurses).

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	4	3	3	3

INTERESTS

SMD

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	4	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, D3

EDUCATION/TRAINING

5, 6, 7, R

Examples of Job Titles

Occupational Health Nurse

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop and implement employee health-education programs and provide registered nursing care in private businesses and industry
- **Verbal ability** to prepare accident reports for insurance and statistical purposes, and to explain purposes and procedures of medical examinations to prospective employees
- **Spatial perception** to visualize body structures and respiratory, circulatory and nervous systems
- **Form perception** to detect patients' condition and reaction to drugs and treatments, and to notice any significant changes in patients' general appearance
- **Motor co-ordination and finger and manual dexterity** to give first aid and assist physicians with medical examinations of staff and prospective employees
- **Social interest in speaking** to advise employees about health and safety, and to advise personnel departments of health findings pertinent to employees' work capabilities
- **Methodical interest in compiling** information to keep records of persons treated and to record employees' personal and medical data
- **Directive interest in operating** medical equipment to perform tests; and in arranging for ill and seriously injured employees to be transported to hospital

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Discomforts

- D3 Odours

Employment Requirements

Education/Training

5, 6, 7, R

- Completion of a university, college or other approved registered nursing program is required.
- Additional academic training or experience is required to specialize in a specific area of nursing.
- Licensing by a provincial or territorial governing body is required.
- In Quebec, membership in the professional corporation for nurses is mandatory.

Workplaces/Employers

Companies

Self-employment

Occupational Options

Registered nurses may progress to supervisory positions with experience.

Similar Occupations Classified Elsewhere

Head Nurses and Supervisors (3151)

Registered Nursing Assistants (3233)

Licensed practical nurse (in 3233
Registered Nursing Assistants)

3152.3 Public Health Nurses

Public Health Nurses are registered nurses who provide health education and direct nursing care in public health units and through home visits. This group includes graduates of a nursing program who are awaiting registration (graduate nurses).

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	4	3	3	3

INTERESTS

SMD

DATA PEOPLE THINGS (DPT)

324

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, D3

EDUCATION/TRAINING

5, 6, 7, R

Examples of Job Titles

Community Health Nurse

Public Health Nurse

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide health education and registered nursing care in public health units and through home visits
- **Verbal ability** to advise families on how to care for patients and create and maintain a healthy environment
- **Spatial perception** to visualize body structures and respiratory, circulatory and nervous systems
- **Form perception** to detect patients' conditions and reactions to drugs and treatments, and to notice any significant changes in patients' general appearance
- **Motor co-ordination and finger and manual dexterity** to administer prescribed treatments to patients with mental and physical disorders
- **Social interest in instructing** to advise individuals and groups about health education and disease prevention, and to teach maternal care, child care and other subjects related to individual and community welfare
- **Methodical interest in compiling** information to keep patient records and help prepare special studies
- **Directive interest in operating** medical equipment to perform tests and administer treatments; and in assisting persons with social, emotional and other problems to secure aid through community resources

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Discomforts

- D3 Odours

Employment Requirements

Education/Training

S, 6, 7, R

- Completion of a university, college or other approved registered nursing program is required.
- Additional academic training or experience is required to specialize in a specific area of nursing.
- Licensing by a provincial or territorial governing body is required.
- In Quebec, membership in the professional corporation for nurses is mandatory.

Workplaces/Employers

Clinics

Private homes

Public health units

Self-employment

Occupational Options

Registered nurses may progress to supervisory positions with experience.

Similar Occupations Classified Elsewhere

Head Nurses and Supervisors (3151)

Registered Nursing Assistants (3233)

Licensed practical nurse (in 3233
Registered Nursing Assistants)

3152.4 Psychiatric Nurses

Psychiatric Nurses are registered nurses who provide direct nursing care and supportive counselling to patients in psychiatric hospitals and mental health clinics. This group includes graduates of a nursing program who are awaiting registration (graduate nurses).

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	4	3	3	3

INTERESTS

SMD

DATA PEOPLE THINGS (DPT)

324

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, D3

EDUCATION/TRAINING

5, 6, 7, R

Examples of Job Titles

Psychiatric Nurse

Registered Psychiatric Nurse (R.P.N.)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide nursing care, supportive counselling and life skills programs in psychiatric hospitals and mental health clinics
- **Verbal ability** to observe, report and discuss patients' conditions with physicians and other members of a health care team
- **Spatial perception** to visualize body structures and respiratory, circulatory and nervous systems
- **Form perception** to detect patients' conditions and reactions to drugs and treatments, and to notice any significant changes in patients' general appearance
- **Motor co-ordination and finger and manual dexterity** to administer prescribed medications and treatments, and to attend to total nursing care of patients
- **Social interest in instructing** patients in life skills programs; and in encouraging patients to participate in routine work functions and recreational, community and other therapeutic activities
- **Methodical interest in compiling** information to keep patient records and record symptoms and changes in patients' conditions
- **Directive interest in operating** medical equipment to perform tests and administer treatments; and in evaluating patients' adjustment in the community

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Discomforts

- D3 Odours

Employment Requirements

Education/Training

5, 6, 7, R

Registered Nurses (R.N.)

- Completion of a university, college or other approved registered nursing program is required.
- Additional academic training or experience is required to specialize in a specific area of nursing.
- Licensing by a provincial or territorial governing body is required.
- In Quebec, membership in the professional corporation for nurses is mandatory.

Registered Psychiatric Nurses (R.P.N.)

- Completion of a college or other registered psychiatric nursing program is required.
- Licensing is required and available only in Manitoba, Saskatchewan, Alberta and British Columbia.

Workplaces/Employers

Hospitals

Mental health clinics

Psychiatric hospitals

Occupational Options

The qualifications of nurses trained exclusively as registered psychiatric nurses (R.P.N.) are recognized only in Manitoba, Saskatchewan, Alberta and British Columbia.

In all provinces, registered nurses (R.N.) may work as psychiatric nurses without separate licensing as a registered psychiatric nurse.

Registered nurses may progress to supervisory positions with experience.

Similar Occupations Classified Elsewhere

Head Nurses and Supervisors (3151)

Registered Nursing Assistants (3233)

Licensed practical nurse (in 3233
Registered Nursing Assistants)

3152.5 Nursing Consultants

Nursing Consultants are registered nurses who provide consultative services regarding issues relevant to the practice of nursing.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	4	4	4	4

INTERESTS

SMD

DATA PEOPLE THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8, R

Examples of Job Titles

Nursing Consultant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide consultative services to institutes and associations regarding issues relevant to the nursing profession and nursing practices
- **Verbal and numerical ability** to prepare data for news articles and lectures, and to confer with nursing groups on matters relevant to professional, educational and economic problems
- **Social interest in consulting** with individuals and groups to plan nursing curricula and nursing service programs; and in promoting and assisting with the planning of educational programs, field workshops and seminars
- **Methodical interest in co-ordinating** information to review administrative procedures and nursing practices to recommend changes; and in preparing and providing data for news articles and lectures
- **Directive interest** in advising hospitals, nursing schools, government and other organizations on policies, procedures and problems related to nursing activities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8, R

- A master's or doctoral degree in nursing is usually required for nursing consultants.
- Licensing by a provincial or territorial governing body is required.
- In Quebec, membership in the professional corporation for nurses is mandatory.

Workplaces/Employers

Associations

Companies

Institutes

Self-employment

Occupational Options

Registered nurses may progress to supervisory positions with experience.

Similar Occupations Classified Elsewhere

*Head Nurses and Supervisors (3151)**Registered Nursing Assistants (3233)*

Licensed practical nurse (in 3233
Registered Nursing Assistants)

3152.6 Nursing Researchers

Nursing Researchers are registered nurses who engage in research activities on issues relevant to the practice of nursing.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	4	4	4	4

INTERESTS

SMD

DATA PEOPLE THINGS (DPT)

038

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8, R

Examples of Job Titles

Nurse Clinician
Nursing Researcher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, direct and conduct research studies on issues relevant to the nursing profession and nursing practices
- **Verbal and numerical ability** to write articles and reports, interpret statistical findings and communicate the results of these findings to improve the delivery of health care
- **Methodical interest** in synthesizing data to develop recommendations on standards for nursing practices, nursing accreditation and educational needs, and program design
- **Social interest** in advising nursing, medical and administrative staff who wish to apply research findings to clinical, educational and administrative decision making
- **Directive interest** in supervising research staff and co-ordinating research activities

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8, R

- A master's or doctoral degree in nursing is usually required for clinical nurse specialists, nurse clinicians and nursing researchers.
- Licensing by a provincial or territorial governing body is required.
- In Quebec, membership in the professional corporation for nurses is mandatory.

Workplaces/Employers

Associations

Hospitals

Institutes

Self-employment

Occupational Options

Registered nurses may progress to supervisory positions with experience.

Similar Occupations Classified Elsewhere

*Head Nurses and Supervisors (3151)**Registered Nursing Assistants (3233)**Licensed practical nurse (in 3233)**Registered Nursing Assistants*

3211.1 Medical Laboratory Technologists

Medical Laboratory Technologists conduct medical laboratory tests, experiments and analyses to assist in the diagnosis, treatment and prevention of disease. This group includes supervisors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	2	3	3	3	3

INTERESTS

MIO

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Autopsy Technician
Clinical Immunology Technologist
Cytotechnologist
Histology Technologist
Immunohaematology Technologist
Medical Laboratory Technologist
Pathologist's Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct laboratory tests, experiments and analyses to assist in the diagnosis, treatment and prevention of disease
- **Verbal ability** to understand and use scientific terminology associated with areas of medical specialization
- **Numerical ability** to make calculations involved in laboratory experiments and tests
- **Form perception** to study blood cells and other tissue to determine their relation to various physiological and pathological conditions
- **Methodical interest** in supervising and training other medical laboratory technologists and laboratory workers; and in performing blood group, type and compatibility tests for transfusion purposes
- **Innovative interest** in analyzing results of laboratory tests; and in establishing procedures for the analyses of specimens and laboratory experiments
- **Objective interest in precision working** with laboratory equipment to conduct chemical analyses of blood, urine, cerebrospinal and other body fluids, and to prepare tissue sections for microscopic examinations using techniques for the purpose of demonstrating special cellular tissue elements and other characteristics

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
-

Employment Requirements

Education/Training

6+, 7+, R

- Medical laboratory technologists require a bachelor of science or medical laboratory science degree or a two- or three-year college program in medical laboratory technology and a period of supervised practical training.
 - Certification by the Canadian Society of Laboratory Technologists is available for medical laboratory technologists and is usually required by employers.
 - In Quebec, membership in the professional corporation for medical technologists is mandatory.
-

Workplaces/Employers

Hospitals

Clinics

Medical laboratories

Research institutions

Universities

Similar Occupations Classified Elsewhere

Medical Laboratory Technicians
(3212)

Physical and life science technologists in non-medical laboratories (in 221 *Technical Occupations in Physical Sciences* and 222 *Technical Occupations in Life Sciences*)

Remarks

Medical laboratory technologists may specialize in areas such as clinical chemistry, clinical microbiology, haematology, histotechnology, immunohaematology and cytotechnology.

3211.2 Pathologists' Assistants

Pathologists' Assistants assist at autopsies and examinations of surgical specimens and perform autopsies under pathologists' supervision.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	2	3	3	3	3

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	1	2	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3, D3

EDUCATION/TRAINING

5, 6, 7

Examples of Job Titles

Autopsy Technician
Pathologist's Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist with and perform autopsies and surgical-specimen examinations under pathologists' supervision
- **Verbal ability** to record findings of chemical analyses and other tests; may train junior resident pathologists and train and supervise morgue attendants
- **Numerical ability** to make calculations involved in laboratory tests
- **Form perception** to prepare bodies for release to funeral homes following completion of autopsies
- **Methodical interest** in assisting pathologists to prepare for autopsies by obtaining patients' medical records and arranging for radiographic examinations; and in cleaning and maintaining autopsy, surgical and other equipment
- **Objective interest** in precision working with autopsy and surgical equipment to dissect, examine, weigh and photograph organs and specimens
- **Innovative interest** in compiling findings from chemical analyses of collected tissue specimens

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 2 Standing and/or walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light
-

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
- H3 Equipment, machinery, tools

Discomforts

- D3 Odours

Employment Requirements

Education/Training

- 5, 6, 7

- Pathologists' assistants require a bachelor of science degree or training and experience as a registered nurse, registered nursing assistant or medical laboratory technologist and specialized on-the-job training.

Workplaces/Employers

Hospitals

Similar Occupations Classified Elsewhere

Medical Laboratory Technicians
(3212)

Physical and life science technologists in non-medical laboratories (in 221 *Technical Occupations in Physical Sciences* and 222 *Technical Occupations in Life Sciences*)

3212 Medical Laboratory Technicians

Medical Laboratory Technicians conduct routine medical laboratory tests and set up, clean and maintain medical laboratory equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	3	3	3	3	3

INTERESTS

MOi

DATA PEOPLE THINGS (DPT)

370

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	1	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, D3

EDUCATION/TRAINING

4, 6, R

Examples of Job Titles

Medical Laboratory Assistant

Medical Laboratory Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to perform and conduct routine laboratory tests and sample analyses used to diagnose and treat diseases
- **Form perception** to take precise readings from laboratory instruments when conducting experiments and tests
- **Clerical perception** to log patient samples and prepare them for testing
- **Motor co-ordination and finger and manual dexterity** to clean and maintain medical laboratory equipment
- **Methodical interest** in compiling information derived from blood, tissue and other samples collected from patients
- **Objective interest** in setting up medical laboratory equipment
- **Innovative interest** in assisting medical personnel to conduct laboratory tests and sample analyses

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Discomforts

- D3 Odours

Employment Requirements

Education/Training

4, 6, R

- Completion of secondary school and on-the-job training
or
a one-to-two year college program in medical technology is required.
- In Quebec, membership in the professional corporation for medical technologists is mandatory for medical laboratory technicians.

Workplaces/Employers

Clinics

Government research laboratories

Hospitals

Research institutes

Universities

Similar Occupations Classified Elsewhere

Medical Laboratory Technologists and Pathologists' Assistants (3211)

3213 Animal Health Technologists

Animal Health Technologists provide technical support to veterinarians by caring for animals and assisting in the diagnosis and treatment of animal health disorders.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	3	3	3

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

374

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3, H5, D3

EDUCATION/TRAINING

6, R

Examples of Job Titles

Animal Care Technician
Animal Health Technologist
Animal Technologist
Laboratory Animal Technician
Veterinary Laboratory Technician
Veterinary Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide technical assistance to veterinarians, and to handle, restrain and care for animals undergoing treatment and surgery
- **Verbal ability** to understand and use scientific terminology associated with veterinary medicine, and to counsel clients on animal health care
- **Numerical ability** to make calculations for laboratory experiments and tests
- **Spatial and form perception** to observe abnormalities in specimens and take precise readings from laboratory instruments
- **Motor co-ordination and finger and manual dexterity** to administer medications, treatments and vaccines as prescribed by veterinarians
- **Methodical interest** in assisting veterinarians during surgery by preparing surgical equipment and administering and monitoring anaesthetics; and in conducting procedures such as animal identification, dehorning and hoof trimming, and in preparing medications and vaccines under the direction of veterinarians
- **Objective interest** in operating laboratory equipment to perform radiography and other tests to assist in the diagnosis of animal health problems
- **Innovative interest** in compiling information from tests to assist in the diagnosis of animal health problems; and in conducting and assisting in laboratory research

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 3 Medium
-

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
 - H3 Equipment, machinery, tools
 - H5 Radiation
-

Discomforts

- D3 Odours
-

Employment Requirements

Education/Training

6, R

- Completion of a two-year animal health technician or veterinary technician college program or a three-year veterinary technologist college program is required.
 - Registration with provincial animal health technologists' associations is available, but is only required in Saskatchewan and Alberta.
-

Workplaces/Employers

Animal research laboratories

Animal hospitals

Animal shelters

Veterinary clinics

Zoos

Occupational Options

With experience, animal health technologists may progress to supervisory positions such as chief veterinary technician or senior veterinary technician.

Similar Occupations Classified Elsewhere

Pet Groomers and Animal Care Workers (6483)

3214.1 Respiratory Therapists

Respiratory Therapists assist physicians in the diagnosis, treatment and care of patients with respiratory and cardiopulmonary disorders. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

361

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	2	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Chief Respiratory Technologist
Registered Respiratory Therapist
(R.R.T.)
Respiratory Technologist
Respiratory Therapist
Respiratory Therapy Clinical
Instructor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist physicians in the diagnosis, treatment and care of patients with respiratory and cardiopulmonary disorders
- **Verbal ability** to supervise and train students and other respiratory therapists
- **Objective interest in precision working** with equipment to administer treatments such as oxygen, oxygen-air mixtures, humidified air and medications
- **Methodical interest in compiling** information by performing diagnostic tests such as arterial blood-gas analysis and cardiopulmonary function tests; and in monitoring, maintaining and testing diagnostic and therapeutic equipment, and in performing artificial respiration and external cardiac massage
- **Innovative interest in speaking** when assisting with diagnosis and treatment of patients; and in participating in research related to cardiac and pulmonary disorders

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant

Hearing	
1	Limited

Body Position	
2	Standing and/or walking

Limb Co-ordination	
1	Upper limb co-ordination

Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Hazards	
H2	Biological agents

Employment Requirements

Education/Training
S, 6, R

- Respiratory therapists require the completion of a two-to-three year college or hospital program in respiratory therapy, including clinical training.
- Licensing is required for respiratory therapists in Quebec, Manitoba, Alberta and British Columbia.
- In Quebec, membership in the professional corporation for respiratory therapists is mandatory.

Workplaces/Employers

Hospitals
Medical clinics
Respiratory home care companies

Occupational Options

Supervisory positions in this group, such as respiratory therapy clinical instructor, require experience as a respiratory therapist.

Similar Occupations Classified Elsewhere

Other Technical Occupations in Therapy and Assessment (3235)

Other Medical Technologists and Technicians (Except Dental Health) (3219)

Remarks

Respiratory therapists may specialize in areas such as anaesthesia, critical care, paediatrics, cardiopulmonary diagnostics and respiratory home care.

3214.2 Clinical Perfusionists

Clinical Perfusionists provide technical support to cardiac surgeons and anaesthetists during open-heart surgery. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

361

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	2	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5, 6, 7, R

Examples of Job Titles

Cardiovascular Perfusion Supervisor
Cardiovascular Perfusionist (C.P.)
Certified Clinical Perfusionist (C.C.P.)
Chief Perfusionist
Clinical Instructor - Cardiovascular Perfusion
Perfusionist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide technical support to cardiac surgeons and anaesthetists during open-heart surgery
- **Verbal ability** to supervise and train students and other clinical perfusionists
- **Objective interest in precision working** with heart-lung machines and other devices to administer blood products, drugs and other substances as directed by cardiac surgeons and anaesthetists
- **Methodical interest in speaking** for the purpose of assisting cardiac surgeons and anaesthetists; and in assembling, maintaining and operating heart-assist equipment to support or temporarily replace patients' cardiopulmonary functions during open-heart surgery
- **Innovative interest in compiling** data by monitoring vital signs to maintain patients' physiological functions during cardiopulmonary surgery

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

2 Standing and/or walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

5, 6, 7, R

- Clinical perfusionists require the completion of a respiratory therapy or registered nursing program with a minimum of one year of work experience as a respiratory therapist or registered nurse
and
completion of a one-year college program in clinical perfusion, including clinical training.
- Licensing is required for respiratory therapists in Quebec, Manitoba, Alberta and British Columbia.
- In Quebec, membership in the professional corporation for respiratory therapists is mandatory.

Workplaces/Employers

Hospitals

Occupational Options

Supervisory positions in this group, such as cardiovascular perfusion supervisor, require experience as a clinical perfusionist.

Similar Occupations Classified Elsewhere

Other Technical Occupations in Therapy and Assessment (3235)

Other Medical Technologists and Technicians (Except Dental Health) (3219)

3215.1 Radiography Technologists

Radiography Technologists operate radiographic and other equipment to produce images of body structures for the diagnosis of disease and injury. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

361

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	2	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H5

EDUCATION/TRAINING

5+, 6+, R

Examples of Job Titles

Mammography Technician

Radiography Technologist

X-Ray Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate equipment to produce radiographs and images of body structures for the diagnosis of diseases and injuries by radiologists
- **Verbal ability** to explain procedures to patients; may train and supervise students and supervise other radiography technologists
- **Objective interest in precision working** with X-ray, radiographic and fluoroscopic equipment, specialized C.T. scanners and mammography units
- **Methodical interest in speaking** with radiologists to determine procedures to be performed; and in recording and processing patient data, and in performing scheduled maintenance on equipment
- **Innovative interest in compiling** patient data to assist in the diagnosis of diseases and injuries; and in performing minor emergency repairs on radiographic equipment

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 2 Standing and/or walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
- H5 Radiation

Employment Requirements

Education/Training

5+, 6+, R

- Completion of a two-to-three year college, hospital school or other approved program in diagnostic radiography *and* a period of supervised practical training are required.
- Medical radiation technologists require registration with the Canadian Association of Medical Radiation Technologists, a provincial counterpart or an appropriate provincial governing body.
- In Quebec, membership in the professional corporation for radiology technicians is mandatory.
- Experience as a medical radiation technologist is required for supervisors and instructors.

Workplaces/Employers

Cancer treatment centers

Clinics

Hospitals

Radiological laboratories

Occupational Options

There is no mobility among the three types of medical radiation technologists in the 3215 group without further training.

Similar Occupations Classified Elsewhere

Other medical technologists and technicians [in 321 *Medical Technologists and Technicians (Except Dental Health)*]

3215.2 Nuclear Medicine Technologists

Nuclear Medicine Technologists operate radiation therapy equipment to administer radiation treatment and produce images of body structures for the diagnosis of diseases. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	2	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

361

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H5

EDUCATION/TRAINING

5+, 6+, R

Examples of Job Titles

Nuclear Medicine Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate radiation detection equipment and perform diagnostic procedures to assist nuclear medicine physicians in the diagnosis of diseases
- **Verbal ability** to explain procedures to patients; may train and supervise students and supervise other nuclear medicine technologists
- **Form perception** to perform diagnostic procedures using radioactive materials on biological specimens such as blood, urine and faeces
- **Objective interest in precision working** with radiation detection equipment such as gamma cameras, scanners, scintillation counters and ionization chambers
- **Methodical interest in speaking** with physicians to obtain instructions for preparing radiopharmaceuticals and administering them to patients or to biological samples; and in checking equipment to ensure proper operation
- **Innovative interest in compiling** data by recording and processing results of procedures for use by physicians in the diagnosis of diseases

Physical Activities

Vision

- 2 Near vision

 Colour Discrimination

- 1 Relevant

 Hearing

- 2 Verbal interaction

 Body Position

- 3 Sitting, standing, walking

 Limb Co-ordination

- 1 Upper limb co-ordination

 Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

 Hazards

- H2 Biological agents
- H5 Radiation

Employment Requirements

Education/Training

5+, 6+, R

- Completion of a two-to-three year college, hospital school or other approved program in nuclear medicine technology *and* a period of supervised practical training are required.
- Medical radiation technologists require registration with the Canadian Association of Medical Radiation Technologists, a provincial counterpart or an appropriate provincial governing body.
- In Quebec, membership in the professional corporation for radiology technicians is mandatory.
- Experience as a medical radiation technologist is required for supervisors and instructors.

Workplaces/Employers

Cancer treatment centers

Clinics

Hospitals

Radiological laboratories

Occupational Options

There is no mobility among the three types of medical radiation technologists in the 3215 group without further training.

Similar Occupations Classified Elsewhere

Other medical technologists and technicians [in 321 *Medical Technologists and Technicians (Except Dental Health)*]

3215.3 Radiation Therapists

Radiation Therapists operate radiation therapy equipment to administer radiation treatments. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H5

EDUCATION/TRAINING

5+, 6+, R

Examples of Job Titles

Radiation Therapist

Radiation Therapy Technologist

Radiotherapy Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to administer radiation treatments prescribed by radiation oncologists
- **Verbal ability** to explain procedures to patients; may train and supervise students and supervise other radiotherapy technologists
- **Objective interest in precision working** with radiation therapy equipment to administer treatments prescribed by radiation oncologists, and to help with the construction of devices such as plaster casts and acrylic moulds used for radiation treatments
- **Methodical interest** in assisting radiation oncologists and clinical physicists with preparation of radiation treatment plans and sealed radioactive materials; and in checking radiation therapy equipment to ensure proper operation
- **Innovative interest in compiling** information to prepare and administer radiation treatments

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

H5 Radiation

Employment Requirements

Education/Training

5+, 6+, R

- Completion of a two-to-three year college, hospital school or other approved program in radiation therapy *and* a period of supervised practical training are required.
- Medical radiation technologists require registration with the Canadian Association of Medical Radiation Technologists, a provincial counterpart or an appropriate provincial governing body.
- In Quebec, membership in the professional corporation for radiology technicians is mandatory.
- Experience as a medical radiation technologist is required for supervisors and instructors.

Workplaces/Employers

Cancer treatment centers

Clinics

Hospitals

Radiological laboratories

Occupational Options

There is no mobility among the three types of medical radiation technologists in the 3215 group without further training.

Similar Occupations Classified Elsewhere

Other medical technologists and technicians [in 321 *Medical Technologists and Technicians (Except Dental Health)*]

3216 Medical Sonographers

Medical Sonographers operate ultrasound equipment that produces and records images of various parts of the body to aid physicians in monitoring pregnancies and in diagnosing cardiac, vascular and other disorders. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5+, 6+, 7+, R

Examples of Job Titles

Instructor, Diagnostic Medical Sonography

Medical Sonographer

Registered Diagnostic Medical Sonographer

Supervisor, Medical Sonographers

Ultrasound Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate ultrasound imaging equipment to produce images of those parts of the body requiring examination
- **Form perception** to monitor examinations by viewing images on video screens, to evaluate quality and consistency of diagnostic images and to make adjustments to equipment as required
- **Clerical perception** to prepare examination reports for physicians
- **Objective interest in operating** camera units connected to ultrasound equipment to record and store suitable images; and in checking equipment to ensure proper operation and in performing minor repairs and adjustments
- **Methodical interest in speaking** with and observing patients throughout examinations to ensure their safety and comfort; may supervise and train students and other medical sonographers
- **Innovative interest in compiling** information to aid in the monitoring of pregnancies and the diagnoses of cardiac, abdominal, ophthalmic, vascular and other disorders

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

5+, 6+, 7+, R

- Completion of a training program in a related field such as diagnostic radiography, nuclear medicine or nursing *and* completion of a one-year college or hospital-based program in diagnostic medical sonography, and supervised practical training are required.
- Certification examinations by the American Registry of Diagnostic Medical Sonographers are usually required by employers.
- Registration with the Canadian Society of Diagnostic Medical Sonographers or a provincial counterpart is available and may be required by employers.
- In Quebec, membership in the professional corporation for radiology technicians is mandatory.

Workplaces/Employers

Clinics

Hospitals

Occupational Options

The Canadian Society of Diagnostic Medical Sonographers recognizes the certifying examinations of the American Registry of Diagnostic Medical Sonographers.

Similar Occupations Classified Elsewhere

Other technologists and technicians who operate diagnostic medical equipment (in 3218 *Electroencephalographic and Other Diagnostic Technologists, n.e.c.*)

Remarks

Medical sonographers may specialize in abdominal, obstetrical and gynaecological, ophthalmic or peripheral vascular sonography. They may also specialize in adult or paediatric echocardiography or neurosonology.

3217 Cardiology Technologists

Cardiology Technologists operate electrocardiogram and other electronic equipment to record the cardiac activity of patients to aid in the diagnosis and treatment of heart disease. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	2	4	4	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	2	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

S+, 6+, R

Examples of Job Titles

Cardiac Stress Technologist

Cardiology Supervisor

Cardiology Technologist

Electrocardiographic (ECG)
Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate electrocardiogram and other electronic equipment to record the cardiac activity of patients
- **Verbal ability** to prepare reports for cardiologists; may supervise and train students and other cardiology technologists
- **Form perception** to detect irregularities in wave patterns while monitoring cardiac activity
- **Objective interest in operating** cardiology equipment and checking equipment to ensure that it works properly; and in reprogramming pacemakers according to standards
- **Methodical interest in speaking** to patients to prepare them for cardiology procedures and tests
- **Innovative interest in compiling** and recording the results of cardiac activity to aid in the diagnosis of heart disease

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

2 Standing and/or walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

5+, 6+, R

- Completion of secondary school is required.
- Completion of a one-to-two year college, hospital or other training program in cardiology technology *and* supervised practical training are required.
- Registration with the Canadian Society of Cardiology Technologists is available and is usually required by employers.

Workplaces/Employers

Clinics

Hospitals

Similar Occupations Classified Elsewhere

Cardiovascular perfusionists (in 3214 *Respiratory Therapists and Clinical Perfusionists*)

Other technologists and technicians who operate diagnostic medical equipment (in 3218 *Electroencephalographic and Other Diagnostic Technologists, n.e.c.*)

3218.1 Electroencephalographic Technologists

Electroencephalographic (EEG) Technologists operate electroencephalographic and other diagnostic equipment to assist physicians in diagnosing diseases, injuries and abnormalities. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	2	4	4	3	3

INTERESTS

OMs

DATA PEOPLE THINGS (DPT)

361

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5+, 6+, R

Examples of Job Titles

Electroencephalographic (EEG) Technologist

Evoked Potential Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate diagnostic equipment to record the electrical activity of the brain and the cranial and central nervous systems
- **Form perception** to detect irregularities in readings and observe physical changes in patients during tests
- **Objective interest in precision working** with diagnostic equipment
- **Methodical interest in compiling** data to prepare recordings and reports for neurologists; and in checking, calibrating and performing routine maintenance on diagnostic equipment
- **Social interest in speaking** with patients to prepare them for procedures; and in training and supervising students and other electroencephalographic technologists

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

5+, 6+, R

- Completion of secondary school and additional specialized training is required for electroencephalographic technologists.
- Electroencephalographic technologists require completion of a two-year college or hospital-based program in electrophysiology technology and supervised practical training.
- Registration with the Canadian Board of Electroencephalograph Technologists is available for electroencephalographic technologists and is usually required by employers.
- In Quebec, membership in the professional corporation for medical technologists is mandatory.

Workplaces/Employers

Clinics

Hospitals

Medical laboratories

Similar Occupations Classified Elsewhere

*Cardiology Technologists (3217)**Medical Radiation Technologists (3215)**Medical Sonographers (3216)**Other medical technologists [in 3219 Other Medical Technologists and Technicians (Except Dental Health)]*

3218.2 Electromyography Technologists

Electromyography (EMG) Technologists operate electromyographic equipment to assist physicians in diagnosing diseases, injuries and abnormalities. This group includes supervisors and instructors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	2	4	4	3	3

INTERESTS

OMs

DATA PEOPLE THINGS (DPT)

361

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5+, R

Examples of Job Titles

Electromyography (EMG)
Technologist

Electroneurophysiology Technologist

Neuroelectrophysiology Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist physicians in conducting electrophysiological tests, and to prepare recordings and reports of findings
- **Form perception** to detect irregularities in readings and observe physical changes in patients during tests
- **Objective interest in precision working** with electromyographic equipment to conduct electrophysiological tests
- **Methodical interest in compiling** data to prepare recordings and reports of findings for physicians to aid in the diagnoses of neuromuscular disorders; and in checking, calibrating and performing routine equipment maintenance
- **Social interest in speaking** with patients to prepare them for tests; and in training and supervising students and other electromyography technologists

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

S+, R

- Completion of secondary school and additional specialized training is required.
- Electromyography technologists require two years of supervised practical training.
- Registration with the Canadian Society of Clinical Neurophysiologists/EMG Section is available for electromyography technologists and is usually required by employers.
- In Quebec, membership in the professional corporation for medical technologists is mandatory.

Workplaces/Employers

Clinics

Hospitals

Medical laboratories

Similar Occupations Classified Elsewhere

*Cardiology Technologists (3217)**Medical Radiation Technologists (3215)**Medical Sonographers (3216)**Other medical technologists [in 3219 Other Medical Technologists and Technicians (Except Dental Health)]*

3219.1 Dietary Technicians

Dietary Technicians help dietitians and nutritionists plan and supervise food service operations.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

378

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6

Examples of Job Titles

Dietary Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist dietitians and nutritionists in planning and supervising food service operations
- **Clerical perception** to maintain inventory control and other operational records
- **Objective interest** in purchasing and requisitioning food, equipment and other supplies, supervising personnel in the preparation and serving of food, and inspecting work areas and storage facilities to ensure sanitary standards
- **Innovative interest** in assisting dietitians with research in food, nutrition and food service systems
- **Methodical interest** in compiling data to plan menus and diets for individuals and groups under the direction of dietitians and nutritionists; and in helping patients complete menus

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6

- Dietary technicians require completion of a one-to-two year college program in dietary technology and supervised practical training.

Workplaces/Employers

Cafeterias

Extended-care centers

Fast-food outlets

Hospitals

Nursing homes

Schools

Similar Occupations Classified Elsewhere

Other health care technologists and technicians [in 321 *Medical Technologists and Technicians (Except Dental Health)*]

Technologists or technicians in therapy and assessment (in 3235 *Other Technical Occupations in Therapy and Assessment*)

3219.2 Ocularists

Ocularists design, fabricate and fit ocular prostheses.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	2	4	3	2	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

261

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, R

Examples of Job Titles

Ocularist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design, fabricate and fit ocular prostheses, conformers and implants
- **Spatial perception** to compare dimensions of an eye-form with those of the natural eye
- **Form perception** to develop impressions of patients' eye-sockets and mark positions of the iris on impressions
- **Finger dexterity** to paint the irises and pupils of artificial eyes
- **Objective interest in precision working** with fabrication and laboratory equipment to design, fabricate, clean and restore ocular prostheses
- **Innovative interest in analyzing** data to design and fabricate artificial eyes that match natural eyes, and to fit patients with ocular prostheses; and in consulting with ophthalmologists concerning surgical insertion of ocular prostheses
- **Methodical interest in speaking** with patients concerning the loss of depth perception and the care and use of ocular prostheses; and in repairing and maintaining fabrication and laboratory equipment

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, R

- Ocularists require completion of the ocularist training program of the American Society of Ocularists and supervised practical training or a five-year supervised practical training program under a certified ocularist.
- Certification by the National Examining Board of Ocularists is required.

Workplaces/Employers

Artificial eye laboratories

Self-employment

Similar Occupations Classified Elsewhere

Other health care technologists and technicians [in 321 *Medical Technologists and Technicians (Except Dental Health)*]

Technologists or technicians in therapy and assessment (in 3235 *Other Technical Occupations in Therapy and Assessment*)

3219.3 Prosthetists and Orthotists

Prosthetists and Orthotists design, fabricate, fit and repair prosthetic and orthotic devices.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	3	4	3	3	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

231

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

6, R

Examples of Job Titles

Orthotist

Prosthetist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design, build, fit and repair prosthetic and orthotic appliances such as artificial limbs, braces and supports
- **Spatial perception** to interpret sketches to fit, adjust and repair appliances
- **Objective interest in precision working** with equipment to make and modify plaster casts of areas to receive prostheses and orthoses, and to fabricate prosthetic and orthotic appliances
- **Innovative interest in analyzing** physicians' specifications; and in examining and measuring patients to develop working sketches of appliances
- **Methodical interest in supervising** and directing the activities of prosthetic and orthotic technicians; and in advising patients in the use and care of prostheses and orthoses

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H3 Equipment, machinery, tools

Employment Requirements

Education/Training

6, R

- Prosthetists and orthotists require a two-year college program in prosthetics and orthotics technology and three years of supervised practical training.
- Certification by the Canadian Board of Certification of Prosthetists and Orthotists (CBCPO) is required.
- Registration with the Canadian Association of Prosthetists and Orthotists may be required.

Workplaces/Employers

Clinics

Hospitals

Prosthetic device manufacturing companies

Prosthetics and orthotics laboratories

Self-employment

Similar Occupations Classified Elsewhere

Other health care technologists and technicians [in 321 *Medical Technologists and Technicians (Except Dental Health)*]

Technologists or technicians in therapy and assessment (in 3235 *Other Technical Occupations in Therapy and Assessment*)

3219.4 Prosthetic and Orthotic Technicians

Prosthetic and Orthotic Technicians assemble, build and repair prosthetic and orthotic appliances.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	3	4	3	3	3

INTERESTS

OIM

DATA PEOPLE THINGS (DPT)

261

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Orthotic Technician

Prosthetic Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assemble and build prosthetic and orthotic appliances according to drawings, measurements and plaster casts
- **Spatial perception** to examine working sketches and models of prosthetic and orthotic appliances
- **Objective interest in precision working** with machine and hand tools to repair, rebuild and modify prosthetic and orthotic appliances and orthopaedic footwear
- **Innovative interest in analyzing** information taken from body and limb measurements to build prosthetic and orthotic appliances using a variety of materials such as metals, plastics, leathers and fabrics
- **Methodical interest in speaking** with patients to ensure that prosthetic and orthotic appliances fit comfortably during trial fittings; and in building custom-designed components and appliances as directed

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H3 Equipment, machinery, tools

Employment Requirements

Education/Training

5, 6, R

- Prosthetic and orthotic technicians usually require a two-year college program in prosthetics and orthotics and one-to-two years of supervised practical training

or

completion of secondary school and up to four years of supervised practical training under a certified prosthetist or orthotist.

- Registration with the Canadian Association of Prosthetists and Orthotists may be required.

Workplaces/Employers

Clinics

Hospitals

Prosthetic device manufacturing companies

Prosthetics and orthotics laboratories

Occupational Options

Prosthetic and orthotic technicians may become certified prosthetists or orthotists with an additional two years experience as a registered prosthetic or orthotic technician and completion of certification examinations by the Canadian Board of Certification of Prosthetists and Orthotists (CBCPO).

Similar Occupations Classified Elsewhere

Other health care technologists and technicians [in 321 *Medical Technologists and Technicians (Except Dental Health)*]

Technologists or technicians in therapy and assessment (in 3235 *Other Technical Occupations in Therapy and Assessment*)

3221 Denturists

Denturists examine patients and design, construct and repair dentures.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	4	3	3	3

INTERESTS

MIO

DATA PEOPLE THINGS (DPT)

261

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

6+, R

Examples of Job Titles

Denture Technician

Denture Therapist

Denturist

Denturologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design and construct dentures and direct other workers to construct dentures
- **Spatial and form perception** to measure patients' jaws to determine size and shape of dentures required
- **Methodical interest in speaking** with patients to ensure that dentures fit comfortably; and in relining and rebasing dentures
- **Innovative interest in analyzing** information to design, fit and modify new dentures, and to repair dentures
- **Objective interest in precision working** with dental and laboratory equipment; and in making impressions of patients' teeth, gums and jaws

Physical Activities

Vision

- 1 Close visual acuity

 Colour Discrimination

- 1 Relevant

 Hearing

- 2 Verbal interaction

 Body Position

- 3 Sitting, standing, walking

 Limb Co-ordination

- 1 Upper limb co-ordination

 Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

 Hazards

- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

6+, R

- Completion of a two- or three-year college program in denturist technology is required.
- An apprenticeship in a registered denture clinic is usually required.
- Licensing by a provincial or territorial governing body is required except in Prince Edward Island.
- In Quebec, membership in the professional corporation for denturists is mandatory.

Workplaces/Employers

Clinics

Private practices

Similar Occupations Classified Elsewhere

Dental Assistants (3411)

Dental Technicians (3223)

Dental Hygienists and Dental Therapists (3222)

Dentists (3113)

3222.1 Dental Hygienists

Dental Hygienists provide dental hygiene treatment and information related to the prevention of diseases and disorders of the teeth and mouth.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	3	3

INTERESTS

MSi

DATA PEOPLE THINGS (DPT)

321

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3, H5

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Dental Hygienist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide dental hygiene treatment and instruct patients in care of the teeth and mouth
- **Verbal ability** to provide information on oral hygiene and disease prevention; may supervise dental assistants in their health care functions
- **Methodical interest in precision working** with dental equipment to take dental impressions, to clean and stimulate the gums to prevent gum disease, to remove stains and deposits from teeth to prevent tooth and root decay, and to apply fluoride treatments
- **Social interest in instructing** patients regarding oral hygiene procedures; and in consulting with dentists on patient care
- **Innovative interest in compiling** information by conducting initial dental assessments and taking X-rays; may perform restorative and orthodontic procedures under the direction of dentists

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
- H3 Equipment, machinery, tools
- H5 Radiation

Employment Requirements

Education/Training

5, 6, R

- Dental hygienists are required to complete a college program ranging from one-to-three years, or other approved program in dental hygiene recognized by the governing board within the province or territory of residence.
- Licensing by the appropriate provincial or territorial governing body is required for dental hygienists.
- In Quebec, membership in the professional corporation for dental hygienists is mandatory.

Workplaces/Employers

Clinics

Dentists' offices

Educational institutions

Government agencies

Hospitals

Private industry

Similar Occupations Classified Elsewhere

Dental Assistants (3411)

Dental Technicians (3223)

Dentists (3113)

Denturists (3221)

3222.2 Dental Therapists

Dental Therapists carry out limited dental services related to the prevention and treatment of diseases and disorders of the teeth and mouth. They provide services in rural and remote communities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	3	3	3

INTERESTS

MOs

DATA PEOPLE THINGS (DPT)

321

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3, H5

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Dental Therapist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide limited dental services related to the prevention and treatment of diseases and disorders of the teeth and mouth
- **Methodical interest in compiling** information by conducting dental assessments and taking X-rays and dental impressions; and in applying fluoride treatments and removing stains and deposits from teeth
- **Objective interest in precision working** with dental equipment to fill cavities, extract teeth and replace portions of tooth crowns
- **Social interest in instructing** patients regarding oral hygiene procedures; and in consulting with dentists on patient care
- **Verbal ability** to provide dental health education and supervise dental assistants in their health care functions

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents
- H3 Equipment, machinery, tools
- H5 Radiation

Employment Requirements

Education/Training

5, 6, R

- Dental therapists are required to complete the dental therapy program offered by Health Canada or an approved college program in dental therapy.
- Licensing is required for dental therapists in Manitoba and Saskatchewan.

Workplaces/Employers

Federal government

Manitoba provincial government

Saskatchewan provincial government

Similar Occupations Classified Elsewhere

Dental Assistants (3411)

Dental Technicians (3223)

Dentists (3113)

Denturists (3221)

3223 Dental Technicians

Dental Technicians prepare and fabricate dentures and dental devices as prescribed by dentists and dental therapists. This group includes supervisors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	4	3	2	3

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Dental Technician

Registered Dental Technician

Supervisor, Dental Technicians

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to fabricate and repair full and partial dentures and other dental devices such as bridges, inlays, clasps and bands
- **Spatial perception** to visualize the three-dimensional shapes of dental appliances from prescriptions and specifications
- **Form perception** to examine finished work to ensure that it conforms to specifications
- **Finger dexterity** to use laboratory equipment and tools to fabricate dentures and dental devices
- **Methodical interest in analyzing** prescriptions to make and repair dentures and other dental devices; may train and supervise other dental technicians and dental laboratory bench workers, and may perform supervisory and administrative functions for dental laboratories
- **Objective interest in precision working** to shape various substances into plates, clasps, inlays and bridgework
- **Innovative interest** in fabricating and fitting dentures and dental devices

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

5, 6, R

- Completion of a college program in dental technology
or
four or more years of on-the-job training under the supervision of a dental technician are required.
- Licensing by the provincial or territorial governing body is available but not mandatory in all provinces.

- In Quebec, membership in the professional corporation for dental technicians is mandatory.

Workplaces/Employers

Dental laboratories

Similar Occupations Classified Elsewhere

Dental Assistants (3411)

Dental Laboratory Bench Workers (3412)

Dental Hygienists and Dental Therapists (3222)

Denturists (3221)

Remarks

In data provided by Statistics Canada, groups 3223 and 3412 are combined to form 3220 *Dental Technicians and Laboratory Bench Workers*.

3231 Opticians

Opticians fit clients with prescription eyeglasses and contact lenses, assist clients in the selection of eyeglass frames, arrange for the production of eyeglasses and contact lenses, and mount lenses in eyeglass frames. This group includes student opticians and opticians who are managers of optical retail outlets.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	2	3

INTERESTS

OMS

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Contact Lens Fitter
Contact Lens Technician
Dispensing Optician
Ophthalmic Dispenser
Optician
Student Optician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to determine specifications for eyeglasses and contact lenses from prescriptions prepared by ophthalmologists and optometrists or by analyzing clients' eyeglasses and contact lenses and taking direct measurements
- **Verbal ability** to assist clients in selecting contact lenses and eyeglasses by advising on lens materials, frames, tints and anti-reflection coating
- **Finger dexterity** to manipulate small objects and instruments
- **Objective interest in operating** optical measuring devices to measure clients' eye curvatures, pupillary distances and bridge widths; and in using equipment to cut and edge lenses, fit lenses into frames, and grind and polish lenses
- **Methodical interest in compiling** prescriptive information to produce eyeglasses or arrange for the production of eyeglasses, to arrange for grinding and polishing of lenses, and to adjust finished eyeglasses to fit clients; may supervise or manage the activities of students and other opticians
- **Social interest in speaking** to clients to advise them on the correct use and care of contact lenses

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
-

Employment Requirements

Education/Training

5, 6, R

- Completion of a two- or three-year college program in ophthalmic dispensing, which includes an apprenticeship *or* completion of an Optician's Guild two-year ophthalmic dispensing correspondence course, including practical experience, is required.
- Completion of an Optician's Guild two-year contact-lens-technician correspondence course may also be required for contact lens technicians.
- Licensing by the appropriate provincial licensing board is required in all areas of the country except British Columbia, the Yukon and Northwest Territories.
- In Quebec, membership in the professional corporation for opticians is mandatory.

Workplaces/Employers

Optical dispensing departments of retail establishments

Optical retail outlets

Self-employment

Similar Occupations Classified Elsewhere

Optometrists (3121)

Managers of optical retail outlets or of optical dispensing departments who are not opticians (in 0621 *Retail Trade Managers*)

Ophthalmologists (in 3111 *Specialist Physicians*)

Optical lab technicians (in 3414 *Other Aides and Assistants in Support of Health Services*)

3232.1 Midwives

Midwives provide care and advice to women during pregnancy, labour and the post-natal period.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	4	3

INTERESTS

SID

DATA PEOPLE THINGS (DPT)

324

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

6, 7, R

Examples of Job Titles

Midwife

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide care and advice to women during pregnancy, labour and the post-natal period including monitoring weight gain, supervising diet and assisting during normal childbirth
- **Verbal ability** to consult health care professionals when potentially abnormal conditions are identified during pregnancy
- **Motor co-ordination and manual dexterity** to examine and care for newborn infants, and to examine patients to evaluate their conditions and ensure that pregnancies are progressing normally
- **Social interest in compiling** data for the purpose of counselling and educating women concerning diet and pre-natal health practices; and in reassuring patients and providing emotional support during labour and the post-natal period
- **Innovative interest in operating** medical equipment to examine patients and monitor fetuses during labour; and in conducting normal deliveries
- **Directive interest in instructing** patients how to care for themselves and their infants; and providing ongoing support

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 3 Medium
-

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Employment Requirements

Education/Training

6, 7, R

- Midwives require appropriate training which may be acquired through a university degree or college diploma in nursing and a period of supervised practical training.
- Midwives require licensing in Newfoundland by the Newfoundland Midwifery Board.
- A requirement for registration with the College of Midwives of Ontario is pending in Ontario.

Workplaces/Employers

Private practices

Similar Occupations Classified Elsewhere

Massage therapists (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Naturopathic and osteopathic physicians (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

3232.2 Acupuncturists

Acupuncturists are practitioners of natural healing who provide an alternative form of health care to patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	4	3

INTERESTS

SID

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Acupuncturist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to diagnose and treat patients' diseases, physiological disorders and injuries using acupuncture and other therapies
- **Verbal ability** to arrange, through patients' physicians, for additional tests, analyses and X-rays, and to review patients' medical records
- **Motor co-ordination and manual dexterity** to administer treatments by inserting acupuncture needles and using laser and electric stimulation
- **Social interest in co-ordinating** information about patients' general physical conditions by observing and interviewing them
- **Innovative interest in precision working** to insert acupuncture needles at precise points to correct energy imbalances in the body to treat disorders, relieve pain, and improve and maintain health
- **Directive interest in mentoring** patients by diagnosing and treating disorders and injuries

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Employment Requirements

Education/Training

5, 6, R

- Acupuncturists require completion of a training program in acupuncture, and may also require some university undergraduate studies in science or training in a related health care discipline.

- Acupuncturists in Quebec require a three-year college program in acupuncture and certification by the Corporation professionnelle des médecins du Québec.

- Acupuncturists in Alberta require registration by the Health Disciplines Board.

Workplaces/Employers

Clinics

Private practices

Occupational Options

Chinese medical practitioners may practise as acupuncturists.

Similar Occupations Classified Elsewhere

Massage therapists (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Naturopathic and osteopathic physicians (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

3232.3 Chinese Medical Practitioners

Chinese Medical Practitioners are practitioners of natural healing who provide an alternative form of health care to patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	4	3

INTERESTS

SID

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5, 6, 7

Examples of Job Titles

Chinese Medical Practitioner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to diagnose and treat patients' diseases, physiological disorders and injuries using raw herbs and other medicines, dietary supplements and acupuncture
- Social interest in co-ordinating information from patient interviews, examinations and medical tests to diagnose conditions
- Innovative interest in precision working with medicines, dietary supplements and acupuncture equipment to treat disorders
- Directive interest in mentoring patients by diagnosing diseases and providing health care and treatment

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Employment Requirements

Education/Training

5, 6, 7

- Chinese medical practitioners usually require completion of a program in traditional Chinese medicine which is available from certain medical schools abroad *or* some post-secondary education and a diploma in traditional Chinese medicine from a private institute.

Workplaces/Employers

Clinics

Private practices

Occupational Options

Chinese medical practitioners may practice as acupuncturists.

Similar Occupations Classified Elsewhere

Massage therapists (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Naturopathic and osteopathic physicians (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

3232.4 Herbalists

Herbalists are practitioners of natural healing who provide an alternative form of health care to patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	4	3

INTERESTS

SID

DATA PEOPLE THINGS (DPT)

227

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

4, 5

Examples of Job Titles

Herbalist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to advise patients on the use of herbs to treat conditions such as arthritis, rheumatism, asthma, skin disorders and stomach ailments
- **Social interest in analyzing** information provided by patients concerning health problems and disorders
- **Innovative interest in handling** varieties of herbs used as sources of healing; may sell these herbs
- **Directive interest in instructing** patients on the proper use of herbs to treat disorders

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

4, 5

- Completion of courses or a training program specific to the occupation and some supervised practical training are usually required.

Workplaces/Employers

Clinics

Health food stores

Private practices

Similar Occupations Classified Elsewhere

Massage therapists (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Naturopathic and osteopathic physicians (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

3232.5 Homeopaths

Homeopaths are practitioners of natural healing who provide an alternative form of health care to patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	4	3

INTERESTS

SID

DATA PEOPLE THINGS (DPT)

101

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

4, 5

Examples of Job Titles

Homeopath

Homeopathic physician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to diagnose and treat patients' illnesses by administering, in chemical or herbal form, a small dosage of the illness itself or by suggesting lifestyle changes
- **Social interest** in co-ordinating information provided by patients concerning illnesses and health problems
- **Innovative interest** in **precision working** with chemical and herbal forms of illnesses to administer small dosages to patients for treatment purposes
- **Directive interest** in mentoring patients by providing homeopathic health care and by suggesting lifestyle changes

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Employment Requirements

Education/Training

- 4, 5

- Completion of courses or a training program specific to the occupation, and some supervised practical training are usually required.

Workplaces/Employers

Clinics

Private practices

Similar Occupations Classified Elsewhere

Massage therapists (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Naturopathic and osteopathic physicians (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

3232.6 Reflexologists

Reflexologists are practitioners of natural healing who provide an alternative form of health care to patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	4	3

INTERESTS

SID

DATA PEOPLE THINGS (DPT)

274

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

4, 5

Examples of Job Titles

Reflexologist

Shiatsu Therapist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to apply gentle finger pressure to specific spots on clients' hands and feet to promote relaxation and better health
- **Social interest** in assisting patients with their health conditions
- **Innovative interest** in **manipulating** specific areas of patients' hands and feet by applying finger pressure to these spots to promote well-being
- **Directive interest** in analyzing information provided by patients to determine appropriate pressure points for applying reflexology techniques

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

4, 5

- Completion of courses, or a training program specific to the occupation, and some supervised practical training are usually required.

Workplaces/Employers

Clinics

Health clubs

Private practices

Spas

Similar Occupations Classified Elsewhere

Massage therapists (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Naturopathic and osteopathic physicians (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

3232.7 Rolfers

Rolfers are practitioners of natural healing who provide an alternative form of health care to patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	4	3

INTERESTS

SID

DATA PEOPLE THINGS (DPT)

274

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

4, 5

Examples of Job Titles

Rolfer

Rolfing Movement Teacher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess extent of treatment required to reduce chronic pain and stress
- **Social interest** in assisting patients with their health problems
- **Innovative interest** in **manipulating** various parts of the body to realign body structures as a form of treatment for reducing chronic pain and stress
- **Directive interest** in analyzing information provided by patients to determine which areas require realignment and what techniques are appropriate

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

4, 5

- Completion of courses, or a training program specific to the occupation, and some supervised practical training are usually required.

Workplaces/Employers

Clinics

Health clubs

Private practices

Spas

Similar Occupations Classified Elsewhere

Massage therapists (in 3235 *Other Technical Occupations in Therapy and Assessment*)

Naturopathic and osteopathic physicians (in 3123 *Other Professional Occupations in Health Diagnosing and Treating*)

3233.1 Registered Nursing Assistants

Registered Nursing Assistants provide nursing care for patients under the direction of registered nurses, physicians and other health team members.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	3	3

INTERESTS

MSo

DATA PEOPLE THINGS (DPT)

374

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	3	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5, 6, R

Examples of Job Titles

Certified Nursing Assistant
Licensed Nursing Assistant
Licensed Practical Nurse
Registered Nursing Assistant (R.N.A.)

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to provide nursing care for patients under the direction of registered nurses, physicians and other health team members
- Methodical interest in compiling information by taking patients' blood pressure, temperature and pulse, and reporting changes to registered nurses, doctors and other health team members; and in distributing medication to patients
- Social interest in assisting registered nurses with procedures such as respiratory therapy, intravenous (I.V.) therapy, applying sterile compresses and removing sutures; and in changing patients' dressings, and bathing and dressing patients
- Objective interest in operating medical equipment to monitor patients' progress and perform routine nursing procedures

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 3 Other sound discrimination

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H2 Biological agents

Employment Requirements

Education/Training

- 5, 6, R

- Completion of a college or other approved program for registered nursing assistants is required.
- Provincial licensing is mandatory for certified nursing assistants in Nova Scotia and Saskatchewan, licensed practical nurses in Manitoba and British Columbia and registered nursing assistants in Newfoundland, New Brunswick, Ontario and Alberta.

- In Quebec, membership in the professional corporation for nursing assistants is mandatory.

Workplaces/Employers

Clinics

Companies

Doctors' offices

Extended-care facilities

Hospitals

Nursing homes

Private homes

Rehabilitation centers

Similar Occupations Classified Elsewhere

*Nurse Aides and Orderlies (3413)**Ward clerks (in 1441 Administrative Clerks)*

3233.2 Operating Room Technicians

Operating Room Technicians assist registered nurses, physicians and other health team members working in operating rooms.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	3	4

INTERESTS

MOs

DATA PEOPLE THINGS (DPT)

577

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	2	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Operating Room Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to prepare patients and operating rooms for surgery
- Methodical interest in copying information to prepare patients for surgery by washing, shaving and sterilizing operative areas, and to clean and sterilize operating rooms and instruments
- Objective interest in handling medical equipment by laying out instruments and passing instruments to surgeons
- Social interest in assisting surgeons and surgical teams with gowns, gloves and instruments during operations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

2 Standing and/or walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Employment Requirements

Education/Training

5, 6

- Completion of a college or other approved program for registered nursing assistants is required.
- Operating room technicians require either additional academic training in operating room techniques or on-the-job training.
- In Quebec, membership in the professional corporation for nursing assistants is mandatory.

Workplaces/Employers

Clinics

Doctors' offices

Extended-care facilities

Hospitals

Nursing homes

Rehabilitation centers

Similar Occupations Classified Elsewhere

*Nurse Aides and Orderlies (3413)**Ward clerks (in 1441 Administrative Clerks)*

3234 Ambulance Attendants and Other Paramedical Occupations

This group includes workers who provide pre-hospital emergency medical care to patients and transport them to hospitals and other medical facilities for further medical care. This group includes supervisors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	3	3

INTERESTS

IMo

DATA PEOPLE THINGS (DPT)

374

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	1	3	4	2	4

ENVIRONMENTAL CONDITIONS (EC)

L1, L2, L3, L4, H2, H3, D1

EDUCATION/TRAINING

4+, 5+, 6+, R

Examples of Job Titles

Ambulance Attendant
Emergency Medical Attendant (EMA)
Emergency Medical Care Assistant
Emergency Medical Technician (EMT)
Emergency Medical Technician, Paramedic
Paramedic
Supervisor, Ambulance Service

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess extent of patients' injuries and illnesses, provide pre-hospital emergency care and transport patients by air, land and water to hospitals and other medical facilities
- **Verbal ability** to document the nature of injuries and treatments provided; may train and supervise other workers
- **Innovative interest in compiling** information to assess trauma victims, patients with respiratory diseases, overdose and poisoning victims, industrial accident victims and other ill and injured individuals to determine emergency medical treatment
- **Methodical interest in assisting** patients by administering pre-hospital emergency care such as cardiopulmonary resuscitation (CPR), oxygen, bandaging and splinting, and in assisting hospital personnel with medical treatments if necessary; and in maintaining ambulances and emergency care equipment and supplies
- **Objective interest in operating** equipment in order to establish and maintain intravenous treatment (I.V.), apply medical equipment for breathing and circulatory complications, administer medications and provide other advanced emergency treatment

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 1 Relevant

Hearing

- 3 Other sound discrimination

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 4 Heavy
-

Environmental Conditions

Location

- L1 Regulated inside climate
- L2 Unregulated inside climate
- L3 Outside
- L4 In a vehicle or cab

Hazards

- H2 Biological agents
- H3 Equipment, machinery, tools

Discomforts

- D1 Noise
-

Employment Requirements

Education/Training

4+, 5+, 6+, R

- Completion of a college, hospital-based or other recognized program in emergency medical technology ranging from two-to-24 months or courses in emergency health care
and
supervised practical training are required.
- Certification according to type and length of training by an appropriate governing body is required.
- Those operating emergency vehicles require an appropriate class of licence.

Workplaces/Employers

Fire departments

Government departments and agencies

Hospitals

Manufacturing firms

Mining companies

Private ambulance services

Similar Occupations Classified Elsewhere

Other Aides and Assistants in Support of Health Services (3414)

3235.1 Audio Prosthetists

Audio Prosthetists perform technical therapy and assessment functions to assist audiologists.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	3	3

INTERESTS

MSO

DATA PEOPLE THINGS (DPT)

264

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, R

Examples of Job Titles

Audio Prosthetist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to examine patients and determine the appropriate type of hearing aid they require
- Methodical interest in analyzing data to fit and adjust hearing aids
- Social interest in speaking with patients to ensure comfort and fit of hearing aids during follow-up examinations and readjustments
- Objective interest in operating equipment to take ear impressions for use in the manufacture of audio prostheses

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, R

- Audio prosthetists require completion of a three-year college program in audio prosthetics, including a period of supervised training.
- In Quebec, membership in the professional corporation for audio prosthetists is mandatory.

Workplaces/Employers

Clinics

Educational institutions

Extended-care facilities

Hospitals

Private practices of audiologists

Rehabilitation centers

Similar Occupations Classified Elsewhere

Medical Technologists and Technicians (Except Dental Health) (321)

Other Technical Occupations in Health Care (Except Dental) (323)

Physical therapy aides or
chiropractic aides (in 6631 *Elemental Medical and Hospital Assistants*)

3235.2 Audiometric Assistants

Audiometric Assistants assist audiologists in assessing and examining patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	4	3	3

INTERESTS

MSO

DATA PEOPLE THINGS (DPT)

364

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 6

Examples of Job Titles

Audiometric Assistant

Audiometric Technician

Hearing Aide Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker function as they relate to main duties:

- **General learning ability** to administer, under the supervision of audiologists, tests such as speech reception and speech discrimination to determine patients' hearing thresholds
- **Methodical interest** in compiling and recording test results
- **Social interest** in **speaking** with patients to instruct them in testing and examination procedures
- **Objective interest** in **operating** audiometers to administer hearing tests; and in fitting earphones and bone conductors on patients

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 6

- Audiometric assistants require completion of a 12-to-18 month college program in communicative disorders
or
some post-secondary education and on-the-job training.

Workplaces/Employers

Clinics

Educational institutions

Extended-care facilities

Hospitals

Private practices of audiologists

Rehabilitation centers

Similar Occupations Classified Elsewhere

*Medical Technologists and Technicians (Except Dental Health) (321)**Other Technical Occupations in Health Care (Except Dental) (323)**Physical therapy aides or chiropractic aides (in 6631 Elementar Medical and Hospital Assistants)*

3235.3 Communication Assistants

Communication Assistants assist speech-language pathologists with remedial programs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	4	3	3

INTERESTS

MSO

DATA PEOPLE THINGS (DPT)

377

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 6

Examples of Job Titles

Communication Assistant

Speech Technician

Speech Therapy Aide

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to carry out remedial programs, under the supervision of speech-language pathologists, to rehabilitate patients with communicative disorders
- Methodical interest in compiling information on patients' progress
- Social interest in assisting patients in remedial programs by instructing them on ways to improve communication skills
- Objective interest in handling equipment and materials used for remedial programs

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 4, 6

- Communication assistants require completion of a 12-to-18 month college program in communicative disorders
or
some post-secondary education and on-the-job training.

Workplaces/Employers

Clinics

Educational institutions

Extended-care facilities

Hospitals

Private practices of speech-language pathologists

Rehabilitation centers

Similar Occupations Classified Elsewhere

Medical Technologists and Technicians (Except Dental Health) (321)

Other Technical Occupations in Health Care (Except Dental) (323)

Physical therapy aides or
chiropractic aides (in 6631 *Elemental Medical and Hospital Assistants*)

3235.4 Massage Therapists

Massage Therapists administer massage treatments to correct physical disorders of the body.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	3	3	3

INTERESTS

MSO

DATA PEOPLE THINGS (DPT)

274

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

S, R

Examples of Job Titles

Massage Therapist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to administer massage treatments to patients using such techniques as whirlpool baths and applying hot compresses and packs to affected areas
- **Verbal ability** to assess patients' symptoms and capabilities by observation and questions, and to refer to physicians' prescriptions to determine physical disorders and required treatments
- **Motor co-ordination and finger and manual dexterity** to apply lubricants and rubs, and knead, stroke and tap affected areas with hands to stimulate the action of muscles and joints
- **Methodical interest in analyzing** information obtained from tests and health care professionals to develop treatment plans; and in maintaining records of patients' treatments
- **Social interest in assisting** patients by providing treatment, prescribing remedial exercises and discussing follow-up care; and in consulting physiotherapists, chiropractors and physicians for advice on assessment and the development of treatment plans
- **Objective interest in operating** equipment to administer treatments such as whirlpool baths, and to regulate levels and duration of exposure to treatments requiring steam, dry heat, ultraviolet and infra-red lamps, and hot compresses and packs

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 5, R

- Massage therapists require completion of an 18-to-24 month program in massage therapy from an accredited school and supervised practical training.
- Massage therapists in Ontario and British Columbia require registration with the Ontario Board of Directors of Masseurs or the British Columbia Association of Physiotherapists and Massage Therapists, respectively.

Workplaces/Employers

Clinics

Educational institutions

Extended-care facilities

Hospitals

Rehabilitation centers

Self-employment

Spas

Similar Occupations Classified Elsewhere

Medical Technologists and Technicians (Except Dental Health) (321)

Other Technical Occupations in Health Care (Except Dental) (323)

Physical therapy aides or chiropractic aides (in 6631 *Elemental Medical and Hospital Assistants*)

3235.5 Ophthalmic Medical Assistants

Ophthalmic Medical Assistants assist ophthalmologists in assessing, examining and treating patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	4	3	3

INTERESTS

MSO

DATA PEOPLE THINGS (DPT)

374

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Ophthalmic Assistant
Ophthalmic Technician
Ophthalmic Technologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to operate ophthalmic testing and measuring instruments to help ophthalmologists assess patients' vision
- Methodical interest in compiling information to make preliminary assessments of patients' vision, and to record patients' test results, treatments and case histories
- Social interest in assisting ophthalmologists with examinations, treatments and office surgery; and in instructing patients in insertion, removal, cleaning and storage of contact lenses
- Objective interest in operating ophthalmic testing and measuring instruments and equipment to administer eye drops, ointments and medications as directed by ophthalmologists

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, 6

- Ophthalmic medical assistants require completion of a nine month college program or a 24-to-30 month hospital-based training program in ophthalmic techniques and procedures
or
a minimum of one year of supervised practical training under an ophthalmologist and completion of an approved ophthalmic assistant home study program.

Workplaces/Employers

Clinics

Educational institutions

Extended-care facilities

Hospitals

Private practices of ophthalmologists

Rehabilitation centers

Similar Occupations Classified Elsewhere

Medical Technologists and Technicians (Except Dental Health) (321)

Other Technical Occupations in Health Care (Except Dental) (323)

Physical therapy aides or
chiropractic aides (in 6631 *Elemental Medical and Hospital Assistants*)

3235.6 Physical Rehabilitation Technicians

Physical Rehabilitation Technicians assist physiotherapists in treating injured and disabled patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	4	4	4	4	3	3

INTERESTS

MSO

DATA PEOPLE THINGS (DPT)

374

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6

Examples of Job Titles

Physical Rehabilitation Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to carry out, under a physiotherapist's direction, treatment programs such as massage, thermotherapy, traction and hydrotherapy to rehabilitate injured and disabled patients
- Methodical interest in compiling information on treatments to maintain patients' records
- Social interest in assisting patients by providing therapeutic treatments and fitting them with crutches, splints and other devices
- Objective interest in operating equipment to carry out treatment programs as directed by physiotherapists

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6

- Physical rehabilitation technicians require completion of a three-year college program in physical rehabilitation therapy and supervised practical training.
- Currently, the qualifications of physical rehabilitation technicians are recognized only in the province of Quebec.

Workplaces/Employers

Clinics

Educational institutions

Extended-care facilities

Hospitals

Private practices of physiotherapists

Rehabilitation centers

Similar Occupations Classified Elsewhere

Medical Technologists and Technicians (Except Dental Health) (321)

Other Technical Occupations in Health Care (Except Dental) (323)

Physical therapy aides or
chiropractic aides (in 6631 *Elemental Medical and Hospital Assistants*)

3411 Dental Assistants

Dental Assistants help dentists during the examination and treatment of patients and perform clerical functions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	3	4	3	3	3

INTERESTS

SMo

DATA PEOPLE THINGS (DPT)

574

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, R

Examples of Job Titles

Certified Dental Assistant

Certified Intra-Oral Dental Assistant

Dental Assistant

Registered Dental Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to prepare patients for dental examinations and assist dentists in patient care and treatment
- **Verbal ability** to understand dental terminology and schedule patient appointments
- **Social interest** in assisting dentists in patient care and treatment; and in advising patients about oral hygiene
- **Methodical interest** in copying information to record patient care, order dental and office supplies, prepare filling materials and invoice patients
- **Objective interest** in operating equipment to sterilize and maintain instruments; may perform duties such as taking and developing X-rays, polishing and cleaning teeth and applying fluoride treatment

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6, R

- Completion of a three-month to one-year college or other program in dental assistance *or* completion of secondary school with on-the-job training is required.
- Certification is not mandatory, but is required to perform intra-oral duties.

Workplaces/Employers

Dentists' offices

Educational institutions

Government

Similar Occupations Classified Elsewhere

*Dental Therapists and Dental Hygienists (3222)**Dental Technicians (3223)*

3412 Dental Laboratory Bench Workers

Dental Laboratory Bench Workers help dental technicians prepare and fabricate dentures and other dental devices such as orthodontic appliances, crowns, bridges, clasps and bands.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

581

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	0	1	2	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2

Examples of Job Titles

Ceramic Dental Caster
Ceramic Dental Moulder
Dental Laboratory Bench Worker
Denture Finisher
Denture Packer
Denture Waxer
Orthodontic Band Maker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to help dental technicians in the preparation and fabrication of dentures and other dental devices
- **Spatial and form perception** to prepare plaster models and moulds from dental impressions
- **Motor co-ordination and finger and manual dexterity** to prepare wax bite-blocks and impression trays, and to mould wax over denture set-ups to form contours of artificial gums
- **Objective interest in precision working** to finish metal framework of dentures and polish and buff dentures to obtain natural finish
- **Methodical interest in copying** specifications to cast gold and metal alloys for bridges and denture bases, and to pack plastic material in moulds to form full or partial dentures
- **Innovative interest** in making orthodontic bands from gold, silver, stainless steel and other metals

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 0 Not relevant

Hearing

- 1 Limited

Body Position

- 2 Standing and/or walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

2

- Some secondary school education is required.
- Up to two years of on-the-job training are usually required.

Workplaces/Employers

Commercial dental laboratories

Occupational Options

Progression to dental technician positions is possible with training, experience and certification.

Similar Occupations Classified Elsewhere

Dental Technicians (3223)

Denturists (3221)

Remarks

In data provided by Statistics Canada, groups 3223 and 3412 are combined to form 3220 *Dental Technicians and Laboratory Bench Workers*.

3413 Nurse Aides and Orderlies

Nurse Aides and Orderlies assist nurses, hospital staff and physicians in the basic care of patients.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	4	4	4	4	4	4	3

INTERESTS

SMo

DATA PEOPLE THINGS (DPT)

574

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, D3

EDUCATION/TRAINING

2, 5, 6

Examples of Job Titles

Health Care Aide
Hospital Porter
Long-Term Care Aide
Nurse Aide
Nursing Attendant
Orderly
Patient Care Aide
Personal Care Attendant
Psychiatric Aide
Ward Aide

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide basic patient care in establishments such as hospitals, nursing homes and clinics
- **Manual dexterity** to bathe, dress and groom patients; serve meal trays and feed patients; lift, turn and massage patients; and shave patients before surgery
- **Social interest** in assisting hospital staff by carrying messages, reports, requisitions and specimens from one department to another; and in providing comfort to patients by answering call signals, making beds and maintaining patients' rooms
- **Methodical interest** in copying routine procedures to provide basic patient care, supervise patients' exercise routines, transport patients in wheelchairs and stretchers, and supply and empty bed pans; and in maintaining inventory of supplies
- **Objective interest** in operating medical equipment to take blood pressure, temperature and pulse; in collecting specimens such as urine, faeces and sputum; and in performing other procedures as directed by nursing and hospital staff

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

3 Other sound discrimination

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Discomforts

D3 Odours

Employment Requirements

Education/Training

2, 5, 6

- Some secondary school education and on-the-job training
or
a nursing aide or health care aide program in a college or private institution, or a college nursing orderly program and supervised practical training are required.

Workplaces/Employers

Health care institutions

Hospitals

Nursing homes

Similar Occupations Classified Elsewhere

*Registered Nursing Assistants (3233)**Visiting Homemakers, Housekeepers and Related Occupations (6471)*

3414.1 Orthopaedic Technologists

Orthopaedic Technologists assist orthopaedic surgeons.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	4	4	4	4	4	4	3

INTERESTS

MIO

DATA PEOPLE THINGS (DPT)

574

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, H3, D3

EDUCATION/TRAINING

4, 6

Examples of Job Titles

Cast Room Technician

Orthopaedic Technologist

Surgical Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist orthopaedic surgeons in the treatment of orthopaedic diseases and injuries
- **Methodical interest** in copying established procedures for cleaning and dressing wounds
- **Innovative interest** in assisting in the application, maintenance and adjustment of traction equipment; and in repairing orthopaedic equipment
- **Objective interest** in operating equipment to construct splints and trim and remove casts; and in applying and adjusting casts, splints and bandages, and in removing sutures and pins

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

H3 Equipment and machinery

Discomforts

D3 Odours

Employment Requirements

Education/Training

4, 6

- Orthopaedic technologists require completion of secondary school *and* several months of on-the-job training *or* a college orthopaedic technologist program.

Workplaces/Employers

Clinics

Hospitals

Similar Occupations Classified Elsewhere

Medical technologists and technicians [in 321 *Medical Technologists and Technicians (except Dental Health)*]

Operating room technicians (in 3233 *Registered Nursing Assistants*)

Pathologists' assistants (in 3211 *Medical Laboratory Technologists and Pathologists' Assistants*)

3414.2 Pharmacy Assistants

Pharmacy Assistants assist pharmacists.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	4	4	4	4	4	4	3

INTERESTS

MIO

DATA PEOPLE THINGS (DPT)

377

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, D3

EDUCATION/TRAINING

4, 6

Examples of Job Titles

Pharmacy Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist pharmacists by compounding, packaging and labelling pharmaceutical products, and by maintaining prescription records and inventories of drugs and other pharmaceutical products
- **Methodical interest** in assisting pharmacists by labelling drugs, chemicals and other pharmaceutical preparations, and by unpacking and storing supplies and verifying items received against invoices
- **Objective interest** in handling scales, weights and measures to ensure correct amounts of ingredients are present in formulas and prescriptions
- **Innovative interest** in compiling information to compound, mix and formulate ointments, solutions, lotions, mouthwashes and other medications under the supervision of pharmacists

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Discomforts

D3 Odours

Employment Requirements

Education/Training

4, 6

- Pharmacy assistants require completion of secondary school and several months of on-the-job training or a five-to-nine month college program in pharmaceutical services.

Workplaces/Employers

Clinics

Hospitals

Pharmacies

Similar Occupations Classified Elsewhere

Medical technologists and technicians [in 321 *Medical Technologists and Technicians (except Dental Health)*]

Operating room technicians (in 3233 *Registered Nursing Assistants*)

Pathologists' assistants (in 3211 *Medical Laboratory Technologists and Pathologists' Assistants*)

3414.3 Morgue Attendants

Morgue Attendants assist pathologists.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	4	4	4	4	4	4	3

INTERESTS

MIO

DATA PEOPLE THINGS (DPT)

574

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	3	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H2, D3

EDUCATION/TRAINING

4

Examples of Job Titles

Autopsy Assistant
Laboratory Maintenance Supervisor
Morgue Attendant
Morgue Technician
Surgical Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to help pathologists at autopsies by preparing bodies in morgues and laying out surgical instruments, laboratory supplies, fixatives and other articles
- Methodical interest in assisting pathologists by preparing dissecting rooms, transferring bodies from morgues to examining tables, and cleaning and sewing up bodies for release to funeral homes
- Innovative interest in copying procedures for removing organs and tissue specimens as instructed by pathologists; and in preparing solutions for preservation of specimens
- Objective interest in manipulating surgical instruments and equipment to make incisions and remove body parts; and in placing specimens in preservative solutions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

3 Medium

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H2 Biological agents

Discomforts

D3 Odours

Employment Requirements

Education/Training

4

- Completion of secondary school and several months of on-the-job training are usually required.

Workplaces/Employers

Hospitals

Medical pathology laboratories

Similar Occupations Classified Elsewhere

Medical technologists and technicians [in 321 *Medical Technologists and Technicians (except Dental Health)*]

Operating room technicians (in 3233 *Registered Nursing Assistants*)

Pathologists' assistants (in 3211 *Medical Laboratory Technologists and Pathologists' Assistants*)

**Occupations in Social Science, Education,
Government Services and Religion**

Occupations in Social Science, Education, Government Services and Religion

MAJOR GROUP 41

PROFESSIONAL OCCUPATIONS IN SOCIAL SCIENCE, EDUCATION, GOVERNMENT SERVICES AND RELIGION

411 Judges, Lawyers and Quebec Notaries

4111 Judges

4112 Lawyers and Quebec Notaries

412 University Professors and Assistants

4121 University Professors

4122 Post-Secondary Teaching and Research Assistants

4122.1 Post-Secondary Teaching Assistants

4122.2 Post-Secondary Research Assistants

413 College and Other Vocational Instructors

4131 College and Other Vocational Instructors

414 Secondary and Elementary School Teachers and Counsellors

4141 Secondary School Teachers

4142 Elementary School and Kindergarten Teachers

4143 School and Guidance Counsellors

415 Psychologists, Social Workers, Counsellors, Clergy and Probation Officers

4151 Psychologists

4152 Social Workers

4153 Family, Marriage and Other Related Counsellors

4154 Ministers of Religion

4155 Probation and Parole Officers and Related Occupations

4155.1 Probation and Parole Officers

4155.2 Classification Officers, Correctional Institutions

416 Policy and Program Officers, Researchers and Consultants

4161 Natural and Applied Science Policy Researchers, Consultants and Program Officers

4161.1 Ergonomists

4161.2 Occupational Hygienists

4161.3 Patent Agents

4161.4 Science Policy and Program Officers

4162 Economists and Economic Policy Researchers and Analysts

4163 Economic Development Officers and Marketing Researchers and Consultants

4164 Social Policy Researchers, Consultants and Program Officers

4164.1 Social Policy Researchers

4164.2 Home Economists

4164.3 Housing Policy Analysts

4164.4 International Aid and Development Project Officers

4164.5 Social Survey Researchers

- 4165 Health Policy Researchers, Consultants and Program Officers
- 4166 Education Policy Researchers, Consultants and Program Officers
- 4167 Recreation and Sports Program Supervisors and Consultants
 - 4167.1 Kinesiologists
 - 4167.2 Fitness Consultants
 - 4167.3 Recreation Consultants
 - 4167.4 Recreation, Sports and Fitness Policy Analysts
 - 4167.5 Recreation and Sports Program Supervisors
 - 4167.6 Sports Consultants
- 4168 Program Officers Unique to Government
- 4169 Other Professional Occupations in Social Science
 - 4169.1 Anthropologists
 - 4169.2 Archaeologists
 - 4169.3 Geographers
 - 4169.4 Historians
 - 4169.5 Linguists
 - 4169.6 Political Scientists
 - 4169.7 Psychometricians
 - 4169.8 Sociologists

MAJOR GROUP 42

PARAPROFESSIONAL OCCUPATIONS IN LAW, SOCIAL SERVICES, EDUCATION AND RELIGION

- 421 Paralegals, Social Services Workers and Occupations
in Education and Religion, n.e.c.**
- 4211 Paralegal and Related Occupations
 - 4211.1 Legal Assistants and Paralegals
 - 4211.2 Notaries Public
 - 4211.3 Trade Mark Agents
 - 4211.4 Independent Paralegals
- 4212 Community and Social Service Workers
- 4213 Employment Counsellors
- 4214 Early Childhood Educators
- 4215 Instructors and Teachers of Disabled Persons
- 4216 Other Instructors
 - 4216.1 Driving Instructors
 - 4216.2 Driver's Licence Examiners
 - 4216.3 Sewing Instructors
 - 4216.4 Modelling and Finishing School Instructors
- 4217 Other Religious Occupations

4111 Judges

Judges adjudicate civil and criminal cases and administer justice in courts of law.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

DMI

DATA, PEOPLE, THINGS (DPT)

108

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8+, R

Examples of Job Titles

Chief Justice
County Court Judge
Court of Queen's Bench Justice
District Court Judge
Family Court Judge
Federal Trial Court Justice
Provincial Court of Appeal Justice
Small Claims Court Judge
Superior Court Justice
Supreme Court Justice

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to weigh and consider evidence in non-jury trials and decide legal guilt, innocence and degree of liability of the defendant
- **Verbal ability** to instruct the jury on applicable laws
- **Directive interest** in **co-ordinating** information to preside over courts of law; to interpret and make rules regarding the admissibility of evidence; to supervise other judges and court officers; and to enforce court orders for access and support
- **Methodical interest** in granting divorces and dividing assets between contesting parents and other guardians
- **Innovative interest** in **mentoring** in order to individuals and society by passing sentence on persons convicted in criminal cases and determining damages and other appropriate remedies in civil cases; and in determining custody of children between contesting parents and other guardians

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8+, R

- Extensive experience as a lawyer or as a professor of law with continuous membership in the bar association is usually required.
- Membership in good standing with a provincial or territorial law society or bar association is required.
- Judges are appointed by federal or provincial cabinet.

Workplaces/Employers

Federal courts

Provincial courts

Occupational Options

Those appointed to more senior positions in a court, such as chief justice, usually have experience as judges in that court.

Similar Occupations Classified Elsewhere

Administrative tribunal judges (in 0411 *Government Managers in Health and Social Policy Development and Program Administration*)

Citizenship court judges (in 1227 *Court Officers and Justices of the Peace*)

Justices of the Peace (in 1227 *Court Officers and Justices of the Peace*)

Remarks

Judges may specialize in particular areas of law such as civil, criminal or family law.

4112 Lawyers and Quebec Notaries

Lawyers and Quebec Notaries advise clients on legal matters, plead cases and conduct prosecutions in courts of law, represent clients before tribunals and administration boards, and draw up legal documents such as contracts and wills. Articling students are included in this group.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	3	4	4	4

INTERESTS

MID

DATA, PEOPLE, THINGS (DPT)

108

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8, R

Examples of Job Titles

Articling Student
Attorney
Barrister
Corporate Counsel
Corporation Notary (Quebec)
Crown Attorney
Crown Prosecutor
General Counsel
Law Partner
Lawyer
Legal Advisor
Notary (Quebec)
Notary in Partnership (Quebec)
Solicitor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to draw up legal documents, such as real estate transactions, wills, divorces and contracts, and to advise clients of their legal rights and all matters related to law
- **Verbal ability** to plead clients' cases before courts of law, tribunals and boards (lawyers only), and to communicate with clients using legal terminology
- **Methodical interest** in coordinating information to perform administrative and management functions related to the practice of law
- **Innovative interest** in negotiating settlements of civil disputes (lawyers only), and in applying principles of civil law as it pertains to notarization of legal documents
- **Directive interest** in mentoring in order to advise clients of their legal rights and all matters related to law; may act as an executor, trustee or guardian in estate and family law matters

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements
Education/Training
8, R

Lawyers

- Two-to-three years of undergraduate studies or, in Quebec, completion of college program
and
a bachelor's degree from a recognized law school
and
a period of articling
and
a bar admission course and successful completion of the bar examination set by the provincial law society are required.

- Licensing by the provincial or territorial law society is required.

- In Quebec, membership in the professional corporation for lawyers is mandatory.

Notaries (Quebec)

- Two-to-three years of undergraduate studies or, in Quebec, completion of college program
and
a bachelor's degree from a recognized law school
and
a one-year course in notarial practice from a recognized faculty of law or a Diploma of Notarial Law (D.D.N.)
and
successful completion of the final examination set by the Chamber of Notaries are required.

- Registration with the Chamber of Notaries is required.

- In Quebec, membership in the professional corporation for notaries is mandatory.

Workplaces/Employers

Business establishments

Federal government

Law firms

Municipal governments

Notary offices

Prosecutor's offices

Provincial governments

Self-employment

Occupational Options

Lawyers may specialize in a particular area of law through experience.

Lawyers wishing to practise in another province may be required to pass examinations set by the provincial law society.

Quebec notaries may specialize in a particular area of law through experience.

Similar Occupations Classified Elsewhere

Legal department directors (in 0114 *Other Administrative Services Managers*)

Legal firm managers (in 0123 *Other Business Services Managers*)

Notaries public and trademark agents who are not lawyers (in 4211 *Paralegal and Related Occupations*)

Patent agents who are not lawyers (in 4161 *Natural and Applied Science Policy Researchers, Consultants and Program Officers*)

Remarks

Lawyers and Quebec notaries may specialize in specific areas of law such as criminal law (lawyers only), corporate law, commercial law, real estate law, family and estate law, intellectual property law or labour law.

4121 University Professors

University Professors teach courses to undergraduate and graduate students and conduct research at universities and degree-granting colleges. University Professors who are heads of departments are included in this group.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	3	3	3	4	4	4

INTERESTS

IDS

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2*	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8, R

Examples of Job Titles

Assistant Professor, Botany

Associate Professor, Linguistics

Chairperson, Food Sciences
Department

Department Head, Geography

English Professor

Lecturer, University

Professor of Computer Sciences

Professor of Medicine

University Instructor, Engineering

University Professor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the basic principles and techniques of a particular area of study
- **Verbal ability** to prepare and deliver lectures to students and conduct laboratory sessions and discussion groups
- **Numerical ability** to use advanced mathematics and complex formulas, particularly when teaching engineering, mathematics and physical sciences
- **Innovative interest** in co-ordinating information to conduct research, publish findings in scholarly journals and books, and prepare examinations, laboratory assignments and reports
- **Directive interest** in advising on research matters and directing research programs of graduate students, and in administering and grading examinations, laboratory assignments and reports; may serve on faculty committees dealing with matters such as curriculum planning and degree requirements
- **Social interest** in instructing undergraduate and graduate students; may provide consulting services to government, industry and private individuals

Physical Activities

Vision

2* Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8, R

- A doctoral degree in the field of specialization is required.
- Licences or professional accreditation may be required for professors teaching future practitioners in certain professionally regulated fields such as medicine, engineering, architecture, psychology or law.

Workplaces/Employers

Colleges

Universities

Occupational Options

University professors who are also practitioners in their field of specialization must have the appropriate licences or accreditation.

Progression to senior positions within a department, faculty or university is possible with experience.

Similar Occupations Classified Elsewhere

Administrators in Post-Secondary Education and Vocational Training (0312)

College and Other Vocational Instructors (4131)

Post-Secondary Teaching and Research Assistants (4122)

Remarks

University professors specialize in a particular subject matter such as biology, chemistry, anatomy, sociology, business administration or law.

*Physical activities

- For some occupations in this group, Vision 1 (Close visual acuity) may also apply.

4122.1 Post-Secondary Teaching Assistants

Post-Secondary Teaching Assistants assist university professors, community college teachers and other faculty members in teaching activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

MIS

DATA, PEOPLE, THINGS (DPT)

327

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7

Examples of Job Titles

College Teaching Assistant

Graduate Assistant

Post-Doctoral Fellow

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to grade examinations, term papers and laboratory reports
- **Verbal ability** to conduct seminars, discussion groups and lab sessions
- **Methodical interest in handling** visual aids and other materials to organize them for lectures by university professors and college teachers
- **Innovative interest in compiling** information and reference materials to assist in the preparation and administration of examinations
- **Social interest in instructing** and teaching students in post-secondary educational institutions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7

- Enrolment in a university or college program is required.

Workplaces/Employers

Colleges

Universities

Similar Occupations Classified Elsewhere

Elementary and Secondary School Teacher Assistants (6472)

Remarks

Post-secondary teaching assistants specialize in a subject matter based on their field of study.

4122.2 Post-Secondary Research Assistants

Post-Secondary Research Assistants assist university professors, community college teachers and other faculty members in research activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

MI

DATA, PEOPLE, THINGS (DPT)

370

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
12	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Graduate Assistant

Research Assistant, University

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist professors in conducting research and analyzing results
- **Verbal ability** to conduct literature reviews, surveys and other research for use in scholarly publications
- **Methodical interest in setting up** and conducting lab experiments, demonstrations and other research activities
- **Innovative interest in compiling** research results and assisting with the preparation of journal articles and papers
- **Social interest in assisting** professors in research activities at post-secondary educational institutions

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3*Outside

Employment Requirements

Education/Training

6, 7

- Enrolment in a university or college program is required.

Workplaces/Employers

Colleges

Universities

Similar Occupations Classified Elsewhere

Elementary and Secondary School Teacher Assistants (6472)

Remarks

Post-secondary research assistants specialize in a subject matter based on their field of study.

*Environmental Conditions

- For some occupations in this group, Location L3 (Outside) may also apply.

4131 College and Other Vocational Instructors

College and Other Vocational Instructors teach applied arts, academic, technical and vocational subjects to students. College instructors who are heads of departments are included in this group, as well as trainers who teach in-house training and developmental courses.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

IDS

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2*	0	2	3*	1*	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

1+, 2+, 3+, 4+, 5+, 6+, 7+, 8+, R

Examples of Job Titles

Cegep Teacher
College Department Chairperson,
Trade Programs
College Teacher
Commercial Art Instructor
Community College Teacher
Company Trainer
Computer Training Instructor
Department Head, Dental Hygienist
Program
Hairdressing Teacher
Language Instructor, Language
School
Teacher, Legal Assistant Program
Training Officer
Vocational School Teacher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning and verbal ability** to teach students in a particular area of study using a systematic plan of lectures, demonstrations, discussion groups, shop sessions and seminars
- **Innovative interest in co-ordinating** information to prepare teaching materials, course outlines and examinations
- **Directive interest** in administering and marking tests and papers to evaluate students' progress; may serve on faculty committees concerned with matters such as budgets, curriculum revision, and course and diploma requirements
- **Social interest in instructing** students and advising them on program curriculum and career decisions

Physical Activities

Vision

2* Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3* Sitting, standing, walking

Limb Co-ordination

1* Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

1+, 2+, 3+, 4+, 5+, 6+, 7+, 8+, R

- A bachelor's degree or college diploma or demonstrated expertise in the field of instruction is required.
- A master's degree in the field of instruction may be required.
- For instructors of trades, completion of apprenticeship training, trade certification and additional courses in teaching are required.

Workplaces/Employers

Agricultural colleges

Bible colleges

Cegeps

Community colleges

Language schools

Organizations throughout the private and public sectors

Technical institutes

Vocational schools

Occupational Options

Progression to administrative positions in post-secondary education is possible with experience.

Similar Occupations Classified Elsewhere

Secondary School Teachers (4141)*University Professors* (4121)

Instructors teaching non-academic or non-vocational courses (in 4216 *Other Instructors*)

Remarks

College and other vocational instructors specialize in particular fields of study such as visual arts, dental hygiene, welding, broadcasting, engineering technology or law and security.

*Physical Activities

- For some occupations in this group, the following Vision 1 (Close visual acuity), Body Position 4 (Other body position) and Limb Co-ordination 2 (Multiple limb co-ordination) may also apply.

4141 Secondary School Teachers

Secondary School Teachers prepare and teach academic, technical, vocational and specialized subjects at public and private secondary schools.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	3	3	4	4	4

INTERESTS

SID

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, R

Examples of Job Titles

Adult Education Teacher, Secondary School

Biology Teacher, High School

Commerce Teacher, Secondary School

Department Head, Secondary School

English as a Second Language Teacher, High School

English Teacher, Secondary School

French as a Second Language Teacher, High School

High School Teacher, Special Education

History Teacher, Secondary School

Librarian, High School

Secondary School Teacher

Supply Teacher, High School

Vocational Teacher, High School

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to prepare subject material for presentation to students according to curriculum, and to evaluate students' progress
- **Verbal ability** to teach students and discuss results with parents and school officials
- **Numerical ability** to understand and apply mathematical concepts when teaching mathematics and science subjects, and when computing grades
- **Social interest** in participating in staff meetings, educational conferences and teacher training workshops; may advise students on course selection and on vocational and personal matters
- **Innovative interest in co-ordinating** information to prepare materials for academic, technical, vocational and specialized subjects and examinations
- **Directive interest in instructing** students using a systematic plan of lectures, discussions, audio-visual presentations, and laboratory, shop and field studies; and in assigning and correcting homework, and administering and correcting examinations

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, R

- Teachers of academic subjects require a bachelor's degree in education which is often preceded by a bachelor's degree in the arts or sciences.

- Teachers of vocational or technical subjects require a bachelor's degree in education which is usually preceded by several years of training or experience in the subject.
- Department heads require several years of teaching experience.
- Additional training is required to specialize in special education or English or French as a second language.
- A provincial teaching certificate is required.

Workplaces/Employers

Private secondary schools

Public secondary schools

Occupational Options

Progression to vice-principal or other administrative positions in the education system is possible with experience.

Similar Occupations Classified Elsewhere

Elementary School and Kindergarten Teachers (4142)

Elementary and Secondary School Teacher Assistants (6472)

School and Guidance Counsellors (4143)

College and Other Vocational Instructors (4131)

Teachers of non-academic or vocational courses (in 4216 *Other Instructors*)

Teachers teaching life skills courses to disabled persons (in 4215 *Instructors and Teachers of Disabled Persons*)

Remarks

Secondary school teachers who are heads of departments and high school librarians are included in this group.

Secondary school teachers may specialize in such areas as mathematics, English, French, special education or second language instruction.

4142 Elementary School and Kindergarten Teachers

Elementary School and Kindergarten Teachers teach basic subjects, such as reading, writing and arithmetic, and specialized subjects, such as English or French as a second language, at public and private elementary schools.

Profile Summary

APTITUDES								
G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4
INTERESTS								
SID								
DATA, PEOPLE, THINGS (DPT)								
128								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
3	1	2	3	1	1			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L3								
EDUCATION/TRAINING								
7+, R								

Examples of Job Titles

- Elementary School Teacher
- Elementary School Teacher, English as a Second Language
- Elementary School Teacher, French as a Second Language
- French Immersion Teacher, Elementary School
- Kindergarten Teacher
- Librarian, Elementary School
- Primary School Teacher
- Special Education Teacher, Elementary School
- Supply Teacher, Elementary School

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to teach basic and specialized subjects, and to evaluate students' progress

- **Verbal ability** to teach students and discuss their progress with them, their parents and school officials
- **Social interest** in leading students in activities to promote their physical, mental and social development; in participating in staff meetings, educational conferences and teacher training workshops; and in preparing examinations
- **Innovative interest** in co-ordinating information to prepare courses for presentation to students according to curriculum
- **Directive interest** in instructing students using a systematic plan of lessons, discussions, audio-visual presentations and field trips; and in assigning and correcting homework and administering and correcting examinations; may supervise teachers' aides

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
L3 Outside

Employment Requirements

Education/Training

7+, R

- A bachelor's degree in education is required.
- Additional training is required to specialize in special education or second language instruction.
- A provincial teaching certificate is required. Additional certification is required to teach English or French as a second language.

Workplaces/Employers

Private elementary schools

Public elementary schools

Occupational Options

Progression to education consultant or school principal is possible with experience.

In Quebec, membership in the professional corporation for social workers is mandatory.

Similar Occupations Classified Elsewhere

Early Childhood Educator Assistants (6473)

Early Childhood Educators (4214)

Elementary and Secondary School Teacher Assistants (6472)

School Principals and Administrators of Elementary and Secondary Education (0313)

Teachers of life skills to persons with disabilities (in 4215 *Instructors and Teachers of Disabled Persons*)

Remarks

Elementary school librarians are included in this group.

Elementary school and kindergarten teachers may specialize in such areas as special education or second language instruction.

4143 School and Guidance Counsellors

School and Guidance Counsellors advise students on educational issues, career planning and personal development, and co-ordinate the provision of counselling services to students, parents and teachers.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	4	4	4	4

INTERESTS

SId

DATA, PEOPLE, THINGS (DPT)

108

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+, R

Examples of Job Titles

Educational Counsellor
Guidance Counsellor
School Counsellor
Student Counsellor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning** ability to counsel students regarding issues such as course selection, school adjustment, truancy, study habits and career planning
- **Verbal ability** to consult with teachers and parents regarding students, and with administrators and community agencies regarding programs and referrals
- **Social interest** in **mentoring** in order to counsel students on personal and social issues such as substance abuse, depression, sexuality, self-esteem and family problems
- **Innovative interest** in **co-ordinating** information to provide counselling and information services to students, parents and teachers on subjects such as careers, professional development and interaction with other educational institutions
- **Directive interest** in administering and interpreting standardized intelligence, aptitude and interest tests; may teach regular classes

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+, R

- A bachelor's degree in education is required.
- Graduate courses in counselling are usually required.
- A teacher's certificate from the province of employment is required.
- In Quebec, membership in the professional corporation for school and guidance counsellors is mandatory.
- Some teaching experience is usually required.

Workplaces/Employers

Elementary schools

School boards

Secondary schools

Similar Occupations Classified Elsewhere

*Family, Marriage and Other Related Counsellors (4153)**Secondary School Teachers (4141)**Social Workers (4152)**School psychologists (in 4151 Psychologists)*

4151 Psychologists

Psychologists diagnose psychological and emotional disorders, counsel and provide therapy for clients, and research and apply theories relating to behaviour and mental processes.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	2	3	4	3	4	4	4

INTERESTS

SIM

DATA, PEOPLE, THINGS (DPT)

008

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8+, R

Examples of Job Titles

Clinical Psychologist

Experimental Psychologist

Psychologist

Research Psychologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to examine behaviours; to diagnose psychological and emotional disorders; to apply psychological theory and principles regarding behaviour and mental processes, such as learning, memory, perception and language development; and to interpret results of psychological tests
- **Verbal ability** to counsel individuals and groups to achieve more effective personal, social and vocational development and adjustment
- **Numerical ability** to make statistical computations
- **Social interest in mentoring** in order to counsel clients and provide therapy
- **Innovative interest** in synthesizing information to formulate hypotheses and experimental designs, conduct studies and publish research papers
- **Methodical interest** in reviewing literature and administering psychological tests

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8+, R

- A doctoral degree in psychology is required in Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan and British Columbia.
- A master's degree in psychology is required in Newfoundland, New Brunswick, Quebec, Alberta and the Northwest Territories.

- A period of supervised practical experience is usually required.
- Successful completion of provincial written and/or oral examinations is usually required.
- A provincial certificate of registration is required in all provinces and the Northwest Territories.
- In Quebec, membership in the professional corporation for psychologists is mandatory.
- Psychologists become specialized in a particular area through training and experience.

Workplaces/Employers

Clinics
 Correctional facilities
 Hospitals
 Private practices
 Rehabilitation centers
 Schools
 Universities

Similar Occupations Classified Elsewhere

Psychiatrists (in 3111 *Specialist Physicians*)

Psychology research assistants, non-university (in 4164 *Social Policy Researchers, Consultants and Program Officers*)

Psychologists who teach at universities (in 4121 *University Professors*)

Psychology research assistants, university (in 4122 *Post-Secondary Teaching and Research Assistants*)

Psychometrists (in 4169 *Other Professional Occupations in Social Science*)

Remarks

Psychologists may specialize in clinical psychology or experimental research. They may also specialize in specific areas such as behavioural psychology, child psychology, cognitive psychology, developmental psychology, educational psychology, industrial psychology, neuropsychology, social psychology or sports psychology.

4152 Social Workers

Social Workers treat clients who have difficulties functioning appropriately in a social environment; provide counselling, therapy and referrals to other supportive social services; and evaluate child development and the adequacy of child care.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

SID

DATA, PEOPLE, THINGS (DPT)

108

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+, R

Examples of Job Titles

Co-ordinator of Social Work

Medical Social Worker

Psychiatric Social Worker

Social Work Supervisor

Social Worker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess clients' situations and problems, to determine types of services required, and to advise on and develop social policy
- **Verbal ability** to interview clients individually, in families and in groups, to act as advocates for client groups in the community, and to lobby for solutions to problems directly affecting client groups
- **Innovative interest in co-ordinating** information to plan programs of assistance including referral to agencies that provide financial assistance, legal aid, housing, medical treatment and other services; and in conducting social research
- **Social interest in mentoring** in order to counsel and provide therapy to clients to help them develop skills to deal with and resolve their social and personal problems; and in serving on interdisciplinary teams of professionals working with client groups and in assisting in community development
- **Directive interest** in investigating cases of child abuse and neglect and in taking authorized protective action; may supervise other social workers

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+, R

- A bachelor's degree in social work is required.
- In Alberta, a master's degree in social work is required.
- Supervised practical experience is usually required.
- Successful completion of provincial written and/or oral examinations is usually required.
- A provincial certificate of registration is required by Newfoundland, Prince Edward Island, New Brunswick, Quebec and Saskatchewan.
- Membership in a provincial association of social workers is usually required.
- In Quebec, membership in the professional corporation for social workers is mandatory.

Workplaces/Employers

Correctional facilities

Hospitals

Private practices

School boards

Social service agencies

Welfare organizations

Similar Occupations Classified Elsewhere

*Community and Social Service Workers (4212)**Family, Marriage and Other Related Counsellors (4153)**Managers in Social, Community and Correctional Services (0314)**School and Guidance Counsellors (4143)*

4153 Family, Marriage and Other Related Counsellors

Family, Marriage and Other Related Counsellors assist individuals and groups of clients to identify, understand and overcome personal problems and achieve personal objectives.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	4	4	4	4

INTERESTS

SId

DATA, PEOPLE, THINGS (DPT)

008

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Addictions Counsellor
Bereavement Counsellor
Family Counsellor
Marriage Counsellor
Rehabilitation Counsellor
Sex Therapist
Vocational Rehabilitation Counsellor
Youth Counsellor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess clients' problems and to evaluate the effectiveness of counselling programs and clients' progress in resolving personal problems and moving toward their personal objectives
- **Verbal ability** to interview clients and prepare case histories; may provide public education and consultation to other professionals and groups regarding counselling services, issues and methods
- **Innovative interest** in synthesizing information to develop and implement counselling and intervention programs to assist clients in determining goals and the means of attaining them
- **Social interest** in mentoring in order to counsel clients and provide therapy; and in assisting individuals and groups of clients to identify, understand and overcome personal problems and achieve personal objectives
- **Directive interest** in following up results of counselling programs and clients' adjustments; may supervise other counsellors, social service staff and assistants

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- A master's degree in counselling or a related discipline is required.

Workplaces/Employers

Hospitals

Private practices

Social service agencies

Occupational Options

Counsellors usually become specialized in a particular area through training and experience.

Progression to social service management positions is possible with additional training and experience.

Similar Occupations Classified Elsewhere

*Employment Counsellors (4213)**Managers in Social, Community and Correctional Services (0314)**School and Guidance Counsellors (4143)**Social Workers (4152)*

Remarks

Family, marriage and other related counsellors often specialize in dealing with a specific client group, such as injured workers, or with specific problems such as drug and alcohol addiction, marital difficulties or behavioural disorders.

4154 Ministers of Religion

Ministers of Religion conduct religious services, administer the rites of a religious faith or denomination, provide spiritual and moral guidance and perform other functions associated with the practice of a religion.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	4	4	4	4

INTERESTS

SMI

DATA, PEOPLE, THINGS (DPT)

108

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, 8+

Examples of Job Titles

Archbishop
Bishop
Cardinal
Chancellor
Chaplain
Evangelist
Imam
Minister
Moderator
Pastor
Priest
Rabbi

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide the motivation, leadership and religious training for a congregation or community of a religious faith, and to supervise and administer programs of religious education
- **Verbal ability** to conduct religious services, individual and family counselling, and visit members of the congregation
- **Social interest in mentoring** in order to provide spiritual and moral guidance to members of a religious faith; may participate in humanitarian endeavours, social services and welfare activities
- **Methodical interest** in administering rites of faiths, such as marriages and funerals; may share in the administrative and financial operations of a religious community
- **Innovative interest in co-ordinating** information to plan programs of religious worship and education

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, 8+

- Educational requirements vary depending on the religion and range from the completion of a college or other program in religious studies to a Master of Divinity degree.

- A period of study with a senior minister is usually required.

Workplaces/Employers

Churches

Institutions such as schools, hospitals and prisons

Places of worship

Synagogues

Temples

Occupational Options

Progression to senior positions within a religious order is possible with experience.

Similar Occupations Classified Elsewhere

Other Religious Occupations (4217)

4155.1 Probation and Parole Officers

Probation Officers monitor the conduct and behaviour of criminal offenders serving probation terms. Parole Officers monitor the reintegration of criminal offenders serving the remainder of sentences while conditionally released into the community on parole.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

SMD

DATA, PEOPLE, THINGS (DPT)

108

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4+, 7, 8

Examples of Job Titles

Case Manager, Corrections

Institutional Case Management Officer

Parole Officer

Probation Officer

Youth Worker, Corrections

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to evaluate offenders' progress in meeting goals and maintaining the terms specified in their probation contracts and rehabilitation plans, and to assess offenders' prospects for successful reintegration into the community
- **Verbal ability** to interview offenders to prepare pre-sentence reports, and to interview probationers and parolees regularly
- **Social interest in mentoring** in order to plan rehabilitation programs with offenders by establishing rules of conduct, goals and objectives; and in referring offenders to community and social service programs
- **Methodical interest in co-ordinating** information to compile case records and in submitting information and recommendations to parole boards
- **Directive interest** in supervising the terms of probation orders, and in recommending remedial action or initiating court action when a probationer or parolee refuses to comply with the terms of a rehabilitation program

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4+, 7, 8

- A bachelor's degree in social work, criminology, psychology or other related social science discipline is required.
- A master's degree in social work, criminology, psychology or other related social science discipline may be required.
- For parole officers, several years of experience as a correctional officer and successful completion of a university equivalency test may substitute for formal education requirements.

Workplaces/Employers

Community and correctional facilities

Federal and provincial governments

Occupational Options

Progression to management positions in correctional services is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Community and Social Service Workers (4212)

Correctional Service Officers (6462)

Social Workers (4152)

Correctional services managers (in 0314 *Managers in Social, Community and Correctional Services*)

4155.2 Classification Officers, Correctional Institutions

Classification Officers assess inmates and develop rehabilitation programs for criminal offenders who are incarcerated in correctional facilities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

SMI

DATA, PEOPLE, THINGS (DPT)

108

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, 8

Examples of Job Titles

Classification Counsellor
Classification Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess inmates' adjustment problems, develop suitable rehabilitation programs and evaluate inmates' progress
- **Verbal ability** to interview inmates and communicate with the inmates' families and contacts in the community to maintain established bonds outside the institution
- **Social interest in mentoring** in order to plan rehabilitation programs with offenders by identifying needs and setting goals and objectives; and in advising and counselling inmates regarding their problems
- **Methodical interest in co-ordinating** information to prepare classification reports
- **Innovative interest** in recommending types of incarceration and interventions considered most beneficial for the rehabilitation of inmates, and in developing suitable rehabilitation programs

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training
7, 8

- A bachelor's degree in social work, criminology, psychology or other related social science discipline is required.
- A master's degree in social work, criminology, psychology or other related social science discipline may be required.

Workplaces/Employers

Community and correctional facilities

Federal and provincial governments

Occupational Options

Progression to correctional service management positions is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Community and Social Service Workers (4212)

Correctional Service Officers (6462)

Social Workers (4152)

Correctional services managers (in 0314 *Managers in Social, Community and Correctional Services*)

4161.1 Ergonomists

Ergonomists conduct research, prepare reports and provide consultation and advice on the interrelationships between persons, equipment and the environment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

Ergonomist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to research the interrelationships between persons, equipment, and working and living environments
- **Verbal ability** to prepare research reports
- **Numerical ability** to carry out statistical analyses of data
- **Spatial and form perception** to recognize the interrelationships among equipment, environment and people's motions, and to make visual comparisons and discriminations when examining working and living conditions
- **Innovative interest in co-ordinating** information to evaluate working and living environments
- **Directive interest in consulting** with clients to ensure that products and work methods maximize safety, productivity and comfort
- **Methodical interest in handling** equipment to conduct research

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 0 Not relevant

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7, 8

- A bachelor's degree or college diploma in a related scientific or technical discipline is usually required for occupations in this group.
- A master's degree in a related scientific discipline may be required.

Workplaces/Employers

Advisory agencies
Consulting firms
Federal governments
Municipal governments
Private companies
Provincial governments
Self-employment

Occupational Options

Progression to supervisory or managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Architecture and Science Managers (0212)

Health Policy Researchers, Consultants and Program Officers (4165)

Life Science Professionals (212)

Physical Science Professionals (211)

Professional occupations in engineering (in 213 *Civil, Mechanical, Electrical and Chemical Engineers* and 214 *Other Engineers*)

4161.2 Occupational Hygienists

Occupational Hygienists conduct research, prepare reports, provide consultation and advice, and administer programs related to physical and chemical hazards and stresses in the workplace.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8, R

Examples of Job Titles

Industrial Hygienist
Occupational Hygienist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to study physical and chemical hazards and stresses in the workplace
- **Verbal ability** to prepare research reports
- **Numerical ability** to carry out statistical analyses of data
- **Innovative interest in co-ordinating** information to evaluate physical and chemical hazards and stresses in the workplace
- **Directive interest in consulting** to suggest changes to work processes; and in providing information to workers on how to reduce the risks of specific occupational hazards
- **Methodical interest in handling** equipment to conduct research and take accurate measurements

Physical Activities

Vision
4 Total visual field

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
3 Sitting, standing, walking

Limb Co-ordination
0 Not relevant

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
6, 7, 8, R

- A bachelor's degree or college diploma in a related scientific or technical discipline is usually required for occupations in this group.
- A master's degree in a related scientific discipline may be required.
- Occupational hygienists may require certification by The Canadian Registration Board of Occupational Hygienists or le Conseil d'accréditation en hygiène industrielle du Québec.

Workplaces/Employers

Advisory agencies
Consulting firms
Federal governments
Municipal governments
Private companies
Provincial governments
Self-employment

Occupational Options

Progression to supervisory or managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Architecture and Science Managers (0212)

Health Policy Researchers, Consultants and Program Officers (4165)

Life Science Professionals (212)

Physical Science Professionals (211)

Professional occupations in engineering (in 213 *Civil, Mechanical, Electrical and Chemical Engineers* and 214 *Other Engineers*)

4161.3 Patent Agents

Patent Agents represent inventors in dealings with the Canadian Patent Office to obtain grants of patents for them, and to advise inventors on aspects of patent law.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	3	3	3	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8, R

Examples of Job Titles

Patent Agent

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply elements of patent law
- **Verbal ability** to advise clients on originality and utility of inventions and to represent them before the Canadian Patent Office
- **Clerical perception** to prepare patent applications, including descriptions of inventions and claims that define the monopolies covered by patents
- **Innovative interest in co-ordinating** information to conduct patent searches
- **Directive interest in consulting** with clients to advise them on patent law and on the patentability of inventions
- **Methodical interest** in preparing and modifying patent applications

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7, 8, R

- A bachelor's degree or college diploma in a related scientific or technical discipline is usually required for occupations in this unit group.
- A master's degree in a related scientific discipline may be required.
- Patent agents require 12 months of work experience in the patent field and successful completion of examinations set by the Commissioner of Patents.

Workplaces/Employers

Advisory agencies
 Consulting firms
 Federal governments
 Municipal governments
 Private companies
 Provincial governments
 Self-employment

Occupational Options

Progression to supervisory or managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

Architecture and Science Managers (0212)

Health Policy Researchers, Consultants and Program Officers (4165)

Life Science Professionals (212)

Physical Science Professionals (211)

Professional occupations in engineering (in 213 *Civil, Mechanical, Electrical and Chemical Engineers* and 214 *Other Engineers*)

4161.4 Science Policy and Program Officers

Science Policy and Program Officers conduct research, prepare reports, provide consultation and advice, and administer programs in areas related to the natural and applied sciences.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	3	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

Energy Policy Analyst
Environmental Impact Analyst
Environmental Issues Lobbyist
Fisheries Analyst
Natural Resource Policy Analyst
Program Officer, Natural and Applied Science
Scientific Consultant
Supervisor, Environmental Program Development
Transport Program Analyst
Transportation Safety Analyst

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct research and develop programs related to transportation, communications, natural resources, agriculture, the environment, energy, land use and other scientific fields
- **Verbal ability** to prepare research reports
- **Numerical ability** to conduct statistical analyses
- **Innovative interest** in co-ordinating information to conduct research
- **Directive interest** in consulting to advise governments on policies related to scientific fields
- **Methodical interest** in administering programs

Physical Activities

- Vision
- 3 Near and far vision
- Colour Discrimination
- 0 Not relevant
- Hearing
- 2 Verbal interaction
- Body Position
- 1 Sitting
- Limb Co-ordination
- 0 Not relevant
- Strength
- 1 Limited

Environmental Conditions

- Location
- L1 Regulated inside climate

Employment Requirements

- Education/Training
- 6, 7, 8
- A bachelor’s degree or college diploma in a related scientific or technical discipline is usually required for occupations in this group.
 - A master’s degree in a related scientific discipline may be required.

Workplaces/Employers

- Advisory agencies
- Consulting firms
- Federal government
- Municipal governments
- Private companies
- Provincial governments
- Self-employment

Occupational Options

Progression to supervisory or managerial positions in this field is possible with experience.

Similar Occupations Classified Elsewhere

- Architecture and Science Managers (0212)*
- Health Policy Researchers, Consultants and Program Officers (4165)*
- Life Science Professionals (212)*
- Physical Science Professionals (211)*
- Professional occupations in engineering (in 213 *Civil, Mechanical, Electrical and Chemical Engineers* and 214 *Other Engineers*)

4162 Economists and Economic Policy Researchers and Analysts

Economists and Economic Policy Researchers and Analysts conduct research and develop models to illustrate and forecast economic behaviour and patterns. They advise on matters such as finance, taxation, international trade and labour, and agricultural and industrial markets.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	1	4	4	3	4	4	4

INTERESTS

IMD

DATA, PEOPLE, THINGS (DPT)

288

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, 8

Examples of Job Titles

Agricultural Economist
Development Economist
Economic Analyst
Economist
Economist, Natural Resources
Financial Economist
Industrial Economist
Industrial Trade Economist
Investment Economist
Labour Economist
Retail Analyst
Tax Economist
Trade Economist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to analyze factors that determine economic growth, and to examine problems related to the economic activities of individual companies, such as financing methods, production costs and techniques, and marketing policies, in order to discover possible improvements
- **Verbal ability** to advise government agencies and private establishments on matters such as finance, taxation, international trade and labour, and agricultural and industrial markets
- **Numerical ability** to study mathematical formulas and statistical techniques and apply them to the testing and quantifying of economic theories and the solution of economic problems; and to examine statistical data on the exchange of goods and services among nations
- **Innovative interest** in conducting research and developing models to illustrate and forecast economic behaviour and patterns; in devising methods to collect and analyze data; and in studying the nature of money, credit and credit instruments, and the operations of banks and other financial institutions in order to develop monetary policies and forecasts of financial activity
- **Methodical interest** in analyzing information to forecast the production and consumption of renewable resources; the supply, consumption and depletion of non-renewable resources; and the production and consumption of agricultural products based on records of past crops, labour supply and general economic and agricultural conditions
- **Directive interest** in advising government agencies on policies to increase economic activities; in conducting research on market conditions in local, regional and national areas to set sales and pricing levels for goods and services, and to assess market potential and future trends

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, 8

- A bachelor's degree in economics is required.
- A master's or doctoral degree in economics may be required.

Workplaces/Employers

Government agencies

Private establishments

Occupational Options

Progression to managerial positions in economics is possible with experience.

Similar Occupations Classified Elsewhere

Economic Development Officers and Marketing Researchers and Consultants (4163)

Financial and Investment Analysts (1112)

Government Managers in Economic Analysis, Policy Development and Program Administration (0412)

Economists teaching at universities (in 4121 University Professors)

Labour policy analysts (in 4164 Social Policy Researchers, Consultants and Program Officers)

4163 Economic Development Officers and Marketing Researchers and Consultants

Economic Development Officers and Marketing Researchers and Consultants conduct research, develop policies and administer programs to promote industrial and commercial business investment, tourism in urban and rural areas, and commercial and industrial products and services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

DIS

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7

Examples of Job Titles

Business Development Officer
Economic Development Officer
Industrial Development Officer
Market Researcher
Marketing Analyst
Marketing Consultant
Regional Development Analyst
Tourism Development Officer
Tourism Industry Consultant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct and analyze social and economic surveys on local, regional and national areas to assess development potential and future trends; to conduct surveys and analyze data on the buying habits and preferences of wholesale or retail consumers; and to conduct comparative research on marketing strategies for industrial and commercial products
- **Verbal ability** to respond to inquiries from members of the business community concerning development opportunities, and to review commercial and industrial development proposals
- **Directive interest in co-ordinating** information to plan development projects with representatives of industrial and commercial enterprises, business associations and government agencies; and in administering programs to promote industrial and commercial business investment and tourism
- **Innovative interest** in developing policies and programs to promote industrial and commercial business investment in urban and rural areas, and in developing social and economic profiles of urban and rural areas to encourage industrial and commercial investment
- **Social interest in consulting** to advise on procedures and requirements for government approval

Physical Activities

- Vision
2 Near vision
- Colour Discrimination
0 Not relevant
- Hearing
2 Verbal interaction
- Body Position
1 Sitting
- Limb Co-ordination
0 Not relevant
- Strength
1 Limited

Environmental Conditions

- Location
L1 Regulated inside climate

Employment Requirements

- Education/Training
7
- A bachelor’s degree in economics, commerce, business administration or public administration is required.

Workplaces/Employers

- Business associations
- Government agencies
- Marketing firms
- Self-employment

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

- Economists and Economic Policy Researchers and Analysts (4162)*
- Financial and Investment Analysts (1112)*
- Other Financial Officers (1114)*
- Urban and Land Use Planners (2153)*
- Economic development managers (in 0412 *Government Managers in Economic Analysis, Policy Development and Program Administration*)
- International development or aid officers (in 4164 *Social Policy Researchers, Consultants and Program Officers*)
- Marketing managers (in 0611 *Sales, Marketing and Advertising Managers*)

4164.1 Social Policy Researchers

Social Policy Researchers conduct research, develop policy, and implement and administer programs in areas such as employment, immigration, corrections, housing, labour, family services, foreign aid and international development.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

IDS

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

Child Welfare Policy Analyst
Community Development Officer
Human Rights Officer
Labour Policy Analyst
Native Issues Lobbyist
Policy Analyst, Immigration
Policy Consultant, Employment Equity
Social Policy Researcher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop social programs, social legislation and proposals based on demographic, social and economic analyses and pilot projects
- **Verbal ability** to communicate research findings both orally and in writing
- **Numerical ability** to conduct statistical analyses
- **Innovative interest in co-ordinating** information to develop programs, legislation and proposals based on analyses, and to evaluate pilot projects
- **Directive interest** in implementing and administering programs and projects
- **Social interest in consulting** with government officials to advise on social policy issues

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6, 7, 8

- A bachelor's degree or college diploma in a social science discipline or in business administration is usually required.
- A master's degree in a social science discipline or in business administration may be required.

Workplaces/Employers

Consulting firms
Government departments and agencies
Non-governmental organizations
Professional associations

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Community and Social Service Workers (4212)
Economic Development Officers and Marketing Researchers and Consultants (4163)
Economists and Economic Policy Researchers and Analysts (4162)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Health Policy Researchers, Consultants and Program Officers (4165)

Social Workers (4152)

Home economics teachers (in 4141 Secondary School Teachers and 4142 Elementary School and Kindergarten Teachers)

Non-government managers in social policy (in 0314 Managers in Social, Community and Correctional Services)

Remarks

In data provided by Statistics Canada, groups 4164 and 4165 are combined to form 4160 *Health and Social Policy Researchers, Consultants and Program Officers*.

4164.2 Home Economists

Home Economists conduct research, develop policy, and implement and administer programs on the selection and proper use of food products, textiles and other consumer goods.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	3	3	4	4	4

INTERESTS

IDS

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

Consumer Advisor

Home Economist

Descriptor Profile

Main Characteristic

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop, interpret and apply the principles of home economics through research, analyses and consumer education
- **Verbal ability** to communicate findings both orally and in writing, and to prepare product displays and demonstrations
- **Form perception** to make visual comparisons when preparing, cooking and testing food and recipes
- **Innovative interest in co-ordinating** information to conduct research on the development of new products, to discover facts on food and nutrition, and to test the usefulness of new materials
- **Directive interest in consulting** to advise consumers on the selection and proper use of food products, textiles and other consumer goods
- **Social interest in handling** food products, textiles and other consumer goods for research and demonstration purposes

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6, 7, 8

- A bachelor's degree or college diploma in a social science discipline or in business administration is usually required.
- A master's degree in a social science discipline or in business administration may be required.

Workplaces/Employers

Consulting firms
Government departments and agencies
Non-governmental organizations
Professional associations

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Community and Social Service Workers (4212)

Economic Development Officers and Marketing Researchers and Consultants (4163)

Economists and Economic Policy Researchers and Analysts (4162)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Health Policy Researchers, Consultants and Program Officers (4165)

Social Workers (4152)

Home economics teachers (in 4141 Secondary School Teachers and 4142 Elementary School and Kindergarten Teachers)

Non-government managers in social policy (in 0314 Managers in Social, Community and Correctional Services)

Remarks

In data provided by Statistics Canada, groups 4164 and 4165 are combined to form 4160 *Health and Social Policy Researchers, Consultants and Program Officers*.

4164.3 Housing Policy Analysts

Housing Policy Analysts conduct research, develop policy, and implement and administer housing programs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

IDS

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

Housing Policy Analyst

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to identify economic, demographic and social developments
- **Verbal ability** to communicate research findings and analyses both orally and in writing
- **Innovative interest in co-ordinating** information to assess economic, demographic and social developments
- **Directive interest** in administering and implementing housing programs
- **Social interest in consulting** to report on the implications of economic, demographic and social developments for housing policies

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6, 7, 8

- A bachelor's degree or college diploma in a social science discipline or in business administration is usually required.
- A master's degree in a social science discipline or in business administration may be required.

Workplaces/Employers

Consulting firms
Government departments and agencies
Non-governmental organizations
Professional associations

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Community and Social Service Workers (4212)

Economic Development Officers and Marketing Researchers and Consultants (4163)

Economists and Economic Policy Researchers and Analysts (4162)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Health Policy Researchers, Consultants and Program Officers (4165)

Social Workers (4152)

Home economics teachers (in 4141 Secondary School Teachers and 4142 Elementary School and Kindergarten Teachers)

Non-government managers in social policy (in 0314 Managers in Social, Community and Correctional Services)

Remarks

In data provided by Statistics Canada, groups 4164 and 4165 are combined to form 4160 *Health and Social Policy Researchers, Consultants and Program Officers*.

4164.4 International Aid and Development Project Officers

International Aid and Development Project Officers conduct research, develop policy, and implement and administer programs in international aid and international development.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

IDS

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

International Aid and Development
Project Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan foreign aid and international development policies and programs
- **Verbal ability** to communicate research findings, policies and programs both orally and in writing
- **Innovative interest** in **co-ordinating** information to develop policies and programs
- **Directive interest** in organizing and administering policies and programs
- **Social interest** in **consulting** to advise on policy issues

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7, 8

- A bachelor's degree or college diploma in a social science discipline or in business administration is usually required.
- A master's degree in a social science discipline or in business administration may be required.

Workplaces/Employers

Government departments and agencies

Consulting firms

Professional associations

Non-governmental organizations

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Community and Social Service Workers (4212)

Economic Development Officers and Marketing Researchers and Consultants (4163)

Economists and Economic Policy Researchers and Analysts (4162)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Health Policy Researchers, Consultants and Program Officers (4165)

Social Workers (4152)

Home economics teachers (in 4141 Secondary School Teachers and 4142 Elementary School and Kindergarten Teachers)

Non-government managers in social policy (in 0314 Managers in Social, Community and Correctional Services)

Remarks

In data provided by Statistics Canada, groups 4164 and 4165 are combined to form 4160 *Health and Social Policy Researchers, Consultants and Program Officers*.

4164.5 Social Survey Researchers

Social Survey Researchers conduct research into areas such as employment, immigration, corrections, housing, labour and family services.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	4	4	3	4	4	4

INTERESTS

IDS

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

Social Survey Researcher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to understand and apply survey methodologies
- Verbal ability to communicate survey ideas and results both orally and in writing
- Numerical ability and clerical perception to conduct statistical analyses and compile results
- Innovative interest in co-ordinating information to develop questionnaires and interpret statistics
- Directive interest in compiling and interpreting statistics on social issues and policies
- Social interest in consulting to conduct surveys and advise on social issues and policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7, 8

- A bachelor's degree or college diploma in a social science discipline or in business administration is usually required.
- A master's degree in a social science discipline or in business administration may be required.

Workplaces/Employers

Consulting firms

Government departments and agencies

Non-governmental organizations

Professional associations

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Community and Social Service Workers (4212)

Economic Development Officers and Marketing Researchers and Consultants (4163)

Economists and Economic Policy Researchers and Analysts (4162)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Health Policy Researchers, Consultants and Program Officers (4165)

Social Workers (4152)

Home economics teachers (in 4141 *Secondary School Teachers* and 4142 *Elementary School and Kindergarten Teachers*)

Non-government managers in social policy (in 0314 *Managers in Social, Community and Correctional Services*)

Remarks

In data provided by Statistics Canada, groups 4164 and 4165 are combined to form 4160 *Health and Social Policy Researchers, Consultants and Program Officers*.

4165 Health Policy Researchers, Consultants and Program Officers

Health Policy Researchers, Consultants and Program Officers conduct research, produce reports and administer health care policies and programs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	2	3	3	2	4	4	4

INTERESTS

IMD

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, 8+

Examples of Job Titles

Consultant, Drug and Alcohol Abuse
Consultant, Health Care
Consultant, Mental Health Programs
Health Care Planner
Health Promotion Program Officer
Planning Officer, Child Health Care Programs
Policy Development Officer, Nursing Homes
Research Analyst, Health Policy

Descriptor Profile

Main Characteristics

Occupation in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist in developing government health policy by reviewing literature, conducting interviews, and collecting and analyzing statistical data; and to monitor and evaluate health care programs operated by government departments and agencies, and private organizations
- **Verbal ability** to present the views of associations and organizations to politicians, government officials, the media and the public
- **Numerical ability and clerical perception** to compile, analyze and report statistical information provided by private and public health care institutions and organizations
- **Innovative interest** in producing newsletters, magazines and other documents to provide information to members of associations and organizations, and to the public
- **Methodical interest in co-ordinating** information to maintain, update and manage health care information databases
- **Directive interest in consulting** with clients in private organizations, and government departments and agencies; and in providing advice to senior managers and officials

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+, 8+

- A bachelor's degree or college diploma in health science, public administration or hospital administration, or a bachelor's degree in social science is required.
- A graduate degree in health, social science or an administrative discipline may be required.
- Several years of experience in the health field as a health care professional or as a community or social service worker are usually required.

Workplaces/Employers

Consulting firms
Government departments and agencies
Non-governmental organizations
Professional associations

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

Community and Social Service Workers (4212)

Education Policy Researchers, Consultants and Program Officers (4166)

Government Managers in Health and Social Policy Development and Program Administration (0411)

Managers in Health Care (0311)

Social Policy Researchers, Consultants and Program Officers (4164)

Remarks

In data provided by Statistics Canada, groups 4164 and 4165 are combined to form 4160 *Health and Social Policy Researchers, Consultants and Program Officers*.

Health policy researchers, consultants and program officers may specialize in a particular area of health policy development, research or program administration such as addiction research.

4166 Education Policy Researchers, Consultants and Program Officers

Education Policy Researchers, Consultants and Program Officers conduct research, produce reports and administer elementary, secondary and post-secondary educational policies and programs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

IMD

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, 8+, R

Examples of Job Titles

Co-ordinator, Special Education
Curriculum Developer
Curriculum Planner
Education Consultant
Education Policy Officer
Education Program Co-ordinator
Education Program Officer
Education Researcher
Supervisor, Education Policy

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to evaluate curriculum and recommend improvements, and to determine cost and effectiveness of educational policies and programs
- **Verbal ability** to produce reports and provide consultative services to teachers
- **Innovative interest** in conducting research, developing the structure, content and objectives of new programs, and creating teaching materials and other resources for program delivery
- **Methodical interest** in co-ordinating information to conduct statistical analyses; and in administering educational policies and programs
- **Directive interest** in consulting to provide ongoing professional development and training to teachers; may supervise the work of other policy researchers, consultants and program officers

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7+, 8+, R

- A bachelor's degree in education or in a discipline, such as social science or business administration, is required.
- A master's degree in education may be required.
- Several years of experience as a school teacher are usually required.
- A teacher's certificate for the province of employment is usually required.

Workplaces/Employers

Education research institutes

Government departments

School boards

Self-employment

Occupational Options

Progression to managerial positions is possible with experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Elementary School and Kindergarten Teachers (4142)

Government Managers in Education Policy Development and Program Administration (0413)

School and Guidance Counsellors (4143)

Secondary School Teachers (4141)

4167.1 Kinesiologists

Kinesiologists conduct fitness tests and assessments, and design, develop and deliver fitness counselling and exercise programs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	4	3	4	4

INTERESTS

SDI

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	4	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, 8

Examples of Job Titles

Kinesiologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply knowledge of human movement in order to evaluate health-related matters and recommend solutions in industrial, educational, rehabilitation and social settings
- **Verbal ability** to inform groups and individuals on ways to prevent common sports injuries
- **Spatial and form perception** to assess interactions between people, machines and the work environment, and to assist in the rehabilitation of sports injuries
- **Social interest in consulting** with individuals to provide information on lifestyles and methods to improve fitness, control weight and stop smoking; and in providing recommendations to enhance occupational health and safety
- **Directive interest in handling** equipment to deliver exercise programs; and in conducting fitness tests and assessments
- **Innovative interest in co-ordinating** information to design, organize and implement therapeutic fitness programs

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7, 8

- A university degree in recreation, administration, sports administration, physical education, kinesiology or a related discipline combined with some work experience in a related field
or
a college diploma in a recreation, sports or fitness program combined with some experience in a related field.

- Kinesiologists usually require a master's degree in kinesiology.

Workplaces/Employers

Community centers
Federal government
Health and sports organizations
Municipal governments
Provincial governments
Recreational institutions
Self-employment
Sport and fitness consulting firms

Similar Occupations Classified Elsewhere

Program Leaders and Instructors in Recreation and Sport (5254)

Recreation and Sports Program and Service Directors (0513)

4167.2 Fitness Consultants

Fitness Consultants provide consulting services, conduct research and develop programs and policies related to recreation, sports and physical fitness.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	3	3	3	4	3	4	4

INTERESTS

SDI

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	4	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, R

Examples of Job Titles

Fitness Consultant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to test clients' physical fitness, design individual fitness programs and provide fitness counselling to the public
- **Verbal ability** to lecture to community groups, sports organizations, schools, and other organizations and institutions on the importance of physical fitness
- **Numerical ability** to measure and record clients' bodily proportions, weight and thickness of skin folds
- **Social interest in consulting** to advise community groups, corporations, schools and other organizations in the design and development of programs and activities
- **Directive interest in handling** equipment to train fitness instructors and leaders of exercise classes, and to demonstrate equipment and exercises
- **Innovative interest in co-ordinating** information to design programs for individuals and groups with specific health problems and fitness requirements, and to develop training materials for instructors and leaders; may develop national and provincial programs to encourage public participation

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
4 Other body positions

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
6, 7, R

- A university degree in recreation administration, sports administration, physical education, kinesiology or related discipline combined with some work experience in a related field or a college diploma in a recreation, sports or fitness program combined with some experience in a related field.
- Certified Fitness Appraiser certificate may be required for fitness consultants.

Workplaces/Employers

Community centers
Federal government
Health and sports organizations
Municipal governments
Provincial governments
Recreational institutions
Self-employment
Sport and fitness consulting firms

Occupational Options

Mobility among recreation, sports and fitness consultants may be restricted within an individual area of expertise.

Similar Occupations Classified Elsewhere

Program Leaders and Instructors in Recreation and Sport (5254)

Recreation and Sport Program and Service Directors (0513)

4167.3 Recreation Consultants

Recreation Consultants provide consulting services, conduct research, and develop programs and policies related to recreation, sports and physical fitness.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	3	3	3	4	3	4	4

INTERESTS

SDI

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Recreation Consultant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to advise and consult on the design and development of recreational programs and activities
- Verbal ability to understand technical terms when researching reports and writing policies
- Numerical ability to prepare budgets and participate in the administration of funds
- Social interest in consulting to advise communities, corporations, institutions and other organizations on the design and development of recreational programs and activities
- Directive interest in co-ordinating the delivery of programs to organizations
- Innovative interest in handling equipment to develop workshops and programs to improve the management, training and planning skills of recreation and staff volunteers; and in assessing the needs of client groups in order to determine approaches to meet those needs

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7

- A university degree in recreation administration, sports administration, physical education, kinesiology or related discipline combined with some work experience in a related field or a college diploma in a recreation, sports or fitness program combined with some experience in a related field.

Workplaces/Employers

Community centers
Federal government
Health and sports organizations
Municipal governments
Provincial governments
Recreational institutions
Self-employment
Sport and fitness consulting firms

Occupational Options

Mobility among recreation, sports and fitness consultants may be restricted within an individual area of expertise.

Similar Occupations Classified Elsewhere

Program Leaders and Instructors in Recreation and Sport (5254)

Recreation and Sport Program and Service Directors (0513)

4167.4 Recreation, Sports and Fitness Policy Analysts

Recreation, Sports and Fitness Policy Analysts develop policies related to recreation, sports and physical fitness.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

SDI

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Sport Policy Analyst

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct research and develop government policies related to recreation, sports and fitness
- **Verbal ability** to understand technical terms when researching reports and writing policies
- **Numerical ability** to conduct and present statistical analyses
- **Clerical perception** to ensure that recreational and fitness policies convey accurate meanings
- **Social interest** in consulting with governments and organizations involved in recreation, sports and fitness to conduct research and write policies
- **Directive interest** in co-ordinating information to develop policies
- **Innovative interest** in conducting background research and analyses to develop recreational, sports and fitness policies

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7

- A university degree in recreation administration, sports administration, physical education, kinesiology or related discipline combined with some work experience in a related field *or* a college diploma in a recreation, sports or fitness program combined with some experience in a related field.

Workplaces/Employers

Community centers

Federal government

Health and sports organizations

Municipal governments

Provincial governments

Recreational institutions

Self-employment

Sport and fitness consulting firms

Similar Occupations Classified Elsewhere

Program Leaders and Instructors in Recreation and Sport (5254)

Recreation and Sport Program and Service Directors (0513)

4167.5 Recreation and Sports Program Supervisors

Recreation and Sports Program Supervisors oversee and administer programs and activities related to recreation, sports and physical fitness.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	3	4	4	4

INTERESTS

SDI

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	4	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7, R

Examples of Job Titles

Camp Co-ordinator
Fitness Supervisor
Pool Co-ordinator - Recreation
Sports Program Supervisor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, organize and direct sports, social, cultural, youth, camp, special needs and other programs
- **Verbal ability** to prepare program evaluation reports
- **Numerical ability** to assist in the preparation of budgets
- **Social interest in consulting** to provide recreational and sports information to community groups and the media; may instruct in recreational and sports activities
- **Directive interest in co-ordinating** the activities of leaders and instructors to implement training programs and workshops; and in recruiting volunteer and paid program leaders and instructors
- **Innovative interest** in developing sports, fitness and recreational programs for leaders and instructors

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
4 Other body positions

Limb Co-ordination
0 Not relevant

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
6, 7, R

- A university degree in recreation administration, sports administration, physical education, kinesiology or related discipline combined with some work experience in a related field or a college diploma in a recreation, sports or fitness program combined with some experience in a related field.
- Recreation and sports program supervisors require experience as a program leader or instructor in recreation and sport.
- Certification in program specialization, such as fitness or lifesaving, may also be required.

Workplaces/Employers

Community centers
Federal government
Health and sports organizations
Municipal governments
Provincial governments
Recreational institutions
Self-employment
Sport and fitness consulting firms

Occupational Options

Recreation and sports program supervisors may progress to recreation and sports management positions with experience.

Similar Occupations Classified Elsewhere

Program Leaders and Instructors in Recreation and Sport (5254)

Recreation and Sport Program and Service Directors (0513)

4167.6 Sports Consultants

Sports Consultants advise and consult on the design and development of programs and policies related to recreation, sports and physical fitness.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	3	3	3	3	4	4	4

INTERESTS

SDI

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Sports Consultant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to advise and consult with sports associations and other organizations on the design, development and administration of sports programs and activities
- **Verbal and numerical ability** to negotiate financial assistance for associations from government agencies
- **Social interest in consulting** to provide administrative and management advice to associations on the effective use of staff and resources
- **Directive interest in co-ordinating** information to mediate and facilitate interaction among associations, communities, government agencies and other groups when developing programs and activities
- **Innovative interest in handling** equipment to design programs that meet the needs of participants at all level of sports

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7

- A university degree in recreation administration, sports administration, physical education, kinesiology or related discipline combined with some work experience in a related field or a college diploma in a recreation, sports or fitness program combined with some experience in a related field.

Workplaces/Employers

Community centers
 Federal government
 Health and sports organizations
 Municipal governments
 Provincial governments
 Recreational institutions
 Self-employment
 Sport and fitness consulting firms

Occupational Options

Mobility among recreation, sports and fitness consultants may be restricted within individual area of expertise.

Similar Occupations Classified Elsewhere

Program Leaders and Instructors in Recreation and Sport (5254)

Recreation and Sport Program and Service Directors (0513)

4168 Program Officers Unique to Government

Program Officers in this group are primarily concerned with the administration and operation of government institutions, such as Parliament, and activities unique to the operation of government such as international relations, federal-provincial affairs and elections.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

DIS

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, 8, +

Examples of Job Titles

Attaché
Elections Officer
Federal-Provincial Relations Officer
Foreign Service Officer
Intergovernmental Affairs Officer
Officer, Office of the Speaker
Officer, Royal Commission
Officer, Standing or Select Committee
Protocol Officer
Returning Officer
Tribunal Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan intergovernmental meetings and conferences with officers of other municipal, provincial and federal governments
- **Verbal ability** to explain Canadian foreign and domestic policies to governments and nationals of foreign countries
- **Directive interest** in co-ordinating information to organize the logistics and administration of elections within constituencies and to ensure that electoral and voting procedures are followed; and in planning logistics and overseeing protocol of official visits to Canada by foreign politicians and dignitaries
- **Innovative interest** in co-ordinating administrative support services for legislative committees, royal commissions and tribunals
- **Social interest** in consulting with and advising politicians and diplomats on the social, economic and political effects of government decisions on other governments in Canada and abroad

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, 8, +

- A bachelor's degree is usually required.
- A master's degree may be required.
- Several years of experience as a researcher, consultant or program administrator may be required.
- Foreign service officers are accepted on the basis of competitive examination.

Workplaces/Employers

Primarily government institutions

Similar Occupations Classified Elsewhere

*Administrative Officers (1221)**Court Officers and Justices of the Peace (1227)**Economists and Economic Policy Researchers and Analysts (4162)**Executive Assistants (1222)**Immigration, Unemployment Insurance and Revenue Officers (1228)**Social Policy Researchers, Consultants and Program Officers (4164)*

4169.1 Anthropologists

Anthropologists conduct studies of the origin, development and functioning of human societies and cultures, and of human evolution, physical characteristics and geographical distribution.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, D4

EDUCATION/TRAINING

8

Examples of Job Titles

Anthropologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, acquire and apply principles, theories and methods of study in the field of anthropology in order to conduct research into the origins of human societies and cultures
- **Verbal ability** to understand and use terms associated with anthropological research and to communicate ideas through reports, lectures and publications
- **Innovative interest in co-ordinating** information to gather and analyze data on social and cultural behaviour, artifacts, language and human biology, and to make comparative studies of societies and cultures, or of selected aspects of cultures, of living people and of peoples no longer in existence
- **Directive interest in consulting** to report on data; may teach anthropology at advanced educational levels
- **Methodical interest** in reconstructing records of extinct cultures by studying remains obtained from archaeological excavations

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
3 Sitting, standing, walking

Limb Co-ordination
0 Not relevant

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate
L3 Outside

Discomforts
D4 Non-toxic dusts

Employment Requirements

Education/Training
8

- A master's or doctoral degree in the discipline is usually required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Specialization within this occupation occurs through specialized university study or through experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Economists and Economic Policy Researchers and Analysts (4162)

Psychologists (4151)

Secondary School Teachers (4141)

Social Policy Researchers, Consultants and Program Officers (4164)

University Professors (4121)

Remarks

Specialization usually exists within this occupation.

4169.2 Archaeologists

Archaeologists study artifacts to reconstruct the economic, social, political and intellectual lives of past societies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	4	0	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, D4

EDUCATION/TRAINING

8

Examples of Job Titles

Archaeologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, acquire and apply principles, theories and methods of study in the field of archaeology
- **Verbal ability** to study archival documents, review books and papers, write proposals and prepare papers, articles and summaries concerning research activities
- **Numerical ability** to prepare budgets and funding applications
- **Innovative interest in co-ordinating** information to interpret the significance of archeological finds by determining the importance of the history conveyed by artifacts and the extent to which they reflect the lives of the peoples who produced them
- **Directive interest in consulting** with authorities to provide advice concerning the search for the remains of buildings and the collection, identification and preservation of artifacts; and in selecting site locations and overseeing excavations
- **Methodical interest in handling** artifacts to examine and classify them to determine authenticity and identity

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 0 Not relevant

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Discomforts

- D4 Non-toxic dusts

Employment Requirements

Education/Training

8

- A master's or doctoral degree in the discipline is usually required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Specialization within this occupation occurs through specialized university study or through experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Economists and Economic Policy Researchers and Analysts (4162)

Psychologists (4151)

Secondary School Teachers (4141)

Social Policy Researchers, Consultants and Program Officers (4164)

University Professors (4121)

Remarks

Specialization usually exists within this occupation.

4169.3 Geographers

Geographers study and analyze the spatial distribution and interrelationships of physical, biological and cultural patterns.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Geographer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, acquire and apply principles, theories and methods of study in geography in order to analyze spatial distribution of physical, biological and cultural patterns on the earth
- **Verbal ability** to understand and use terms associated with geography, and to communicate through reports, lectures and publications
- **Numerical ability** to measure, analyze and interpret statistical data and remote sensing information
- **Innovative interest in co-ordinating** information to analyze data, and to incorporate in studies knowledge from related fields such as geology, biology, meteorology, economics, demography, political science, sociology and history
- **Directive interest in consulting** with governments and international, educational, industrial and other organizations on how to determine administrative and political boundaries, how to measure, evaluate and control environmental pollution, and how to assess actual and potential land uses, remote sensing applications and census design; and in compiling and designing maps and atlases
- **Methodical interest in handling** equipment to collect, observe and measure data and remote sensing information

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
1 Relevant

Hearing
2 Verbal interaction

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
8

- A master's or doctoral degree in the discipline is usually required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Specialization within this occupation occurs through specialized university study or through experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Economists and Economic Policy Researchers and Analysts (4162)

Psychologists (4151)

Secondary School Teachers (4141)

Social Policy Researchers, Consultants and Program Officers (4164)

University Professors (4121)

Remarks

Specialization usually exists within this occupation.

4169.4 Historians

Historians conduct research into phases and aspects of past human activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Historian

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, acquire and apply principles, theories and methods of study in history in order to conduct research into phases and aspects of human activities
- **Verbal ability** to study and understand the works of other historians and related researchers, and to present findings and conclusions both orally and in written form
- **Innovative interest in co-ordinating** information to organize, authenticate and evaluate historical data
- **Directive interest in consulting** with other historians on research findings, and in advising individuals, institutions and commercial organizations on historical information; may teach history at advanced educational levels
- **Methodical interest in consulting** various sources of information such as archives, libraries, diaries and newspaper files, and in documenting findings

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
8

- A master's or doctoral degree in the discipline is usually required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Specialization within this occupation occurs through specialized university study or through experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Economists and Economic Policy Researchers and Analysts (4162)

Psychologists (4151)

Secondary School Teachers (4141)

Social Policy Researchers, Consultants and Program Officers (4164)

University Professors (4121)

Remarks

Specialization usually exists within this occupation.

4169.5 Linguists

Linguists study the origin, structure and development of languages.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Linguist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, acquire and apply principles, theories and methods of study in linguistics in order to study the development of languages and to apply linguistic theory to problems in teaching, translation and communications
- **Verbal ability** to understand, analyze and describe ancient and modern languages and language families
- **Innovative interest in co-ordinating** information to reconstruct and decipher ancient languages and to investigate computer applications in language studies and communications
- **Directive interest in consulting** with other linguists and related researchers concerning research activities and to act as advisors to government language programs
- **Methodical interest** in identifying and classifying ancient and modern languages according to their families and origins and in recording previously written languages in standardized written form

Physical Activities

Vision

1 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- A master's or doctoral degree in the discipline is usually required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Specialization within this occupation occurs through specialized university study or through experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Economists and Economic Policy Researchers and Analysts (4162)

Psychologists (4151)

Secondary School Teachers (4141)

Social Policy Researchers, Consultants and Program Officers (4164)

University Professors (4121)

Remarks

Specialization usually exists within this occupation.

4169.6 Political Scientists

Political Scientists conduct research into the theory, origin, development, interrelationships and functioning of political institutions, political movements and individual political behaviour.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Political Scientist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, acquire and apply principles, theories and methods of study in political science in order to conduct research into fields such as political philosophy, theory and practice of political systems and institutions, public administration, political parties, development of public opinion, international relations and the relations of government and business
- **Verbal ability** to present results and conclusions of research to institutions and organizations, and to lecture on topics in political science
- **Innovative interest** in co-ordinating information to analyze, synthesize and interpret surveys and other research data relating to political institutions and practices
- **Directive interest** in consulting with other political scientists and related researchers; and in planning and directing public opinion surveys
- **Methodical interest** in assembling research data by studying literature and the works of other researchers and in observing the workings of contemporary political institutions and organizations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- A master's or doctoral degree in the discipline is usually required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Specialization within this occupation occurs through specialized university study or through experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Economists and Economic Policy Researchers and Analysts (4162)

Psychologists (4151)

Secondary School Teachers (4141)

Social Policy Researchers, Consultants and Program Officers (4164)

University Professors (4121)

Remarks

Specialization usually exists within this occupation.

4169.7 Psychometricians

Psychometricians administer, score and interpret objective psychological tests.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

127

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Psychometrician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, acquire and apply theories, principles and methods of psychological testing and to make judgments when interpreting test data
- **Verbal ability** to understand and use technical terms associated with administering tests of intelligence, aptitude, achievement and other psychological characteristics
- **Numerical ability** to calculate test scores
- **Innovative interest in co-ordinating** information to interpret results in relation to factors such as teaching, learning, motivation, counselling, personality, attitude and physiological reactions; and establishing standard test norms and limitations in terms of validity and reliability
- **Directive interest in instructing** people when administering psychological tests
- **Methodical interest in handling** testing equipment to administer tests; and in recording and compiling test scores and data in psychological experiments and research

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- A master's or doctoral degree in the discipline is usually required.

Workplaces/Employers

Throughout the public and private sectors

Occupational Options

Specialization within this occupation occurs through specialized university study or through experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Economists and Economic Policy Researchers and Analysts (4162)

Psychologists (4151)

Secondary School Teachers (4141)

Social Policy Researchers, Consultants and Program Officers (4164)

University Professors (4121)

Remarks

Specialization usually exists within this occupation.

4169.8 Sociologists

Sociologists study the development, structure, social patterns and inter-relationships of human societies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	1	3	4	4	4	4	4	4

INTERESTS

IDM

DATA, PEOPLE, THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Sociologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, acquire and apply principles, theories and methods of study in the field of sociology in order to study social phenomena such as the family, the community, education, industrial relations, crime, politics, minority and ethnic relations, poverty and mass communications
- **Verbal ability** understand and use sociological terms to present data, conclusions and recommendations for governments, educational institutions, industry, welfare organizations and other interested bodies
- **Innovative interest in co-ordinating** information to devise methods of collecting and analyzing data and to interpret data and correlate findings with other research in the same and related fields
- **Directive interest in consulting** with governments and other organizations to report findings and bring forward recommendations; may teach sociology at advanced educational levels
- **Methodical interest** in organizing data into forms suitable for application by governments and other organizations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- A master's or doctoral degree in the discipline is usually required.

Workplaces/Employers

Throughout the public and private sectors.

Occupational Options

Specialization within this occupation occurs through specialized university study or through experience.

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Economists and Economic Policy Researchers and Analysts (4162)

Psychologists (4151)

Secondary School Teachers (4141)

Social Policy Researchers, Consultants and Program Officers (4164)

University Professors (4121)

Remarks

Specialization usually exists within this occupation.

4211.1 Legal Assistants and Paralegals

Legal Assistants and Paralegals in law firms assist lawyers by preparing legal documents, maintaining records and files and conducting research.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

MSI

DATA, PEOPLE, THINGS (DPT)

378

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5, 6, 7

Examples of Job Titles

Commercial Law Clerk
Corporate Paralegal
Family Law Paralegal
Independent Paralegal
Law Clerk
Legal Assistant
Legal Researcher
Litigation Legal Assistant
Paralegal

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to research records, court files and other legal documents in order to assist lawyers
- **Verbal ability** to discuss details of legal matters with clients and supervisors
- **Clerical perception** to prepare legal documents, court reports and affidavits
- **Methodical interest** in compiling information when searching for and studying records and documents
- **Social interest** in assisting lawyers by interviewing clients, witnesses and other related parties
- **Innovative interest** in researching records, court files and other legal documents

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, 6, 7

- Legal assistants and paralegals in law firms require a bachelor's degree in law or a college diploma in a legal-assistant or law-clerk program
or
in-house training from a law firm or other legal establishment.

Workplaces/Employers

Law firms

Legal departments throughout the public and private sectors

Similar Occupations Classified Elsewhere

*Legal Secretaries (1242)**Articling students, Quebec notaries and trademark lawyers (in 4112 Lawyers and Quebec Notaries)**Patent agents (in 4161 Natural and Applied Science Policy Researchers, Consultants and Program Officers)*

4211.2 Notaries Public

Notaries Public prepare promissory notes, wills, mortgages and other legal documents.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

MDS

DATA, PEOPLE, THINGS (DPT)

368

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

S, R

Examples of Job Titles

Notary Public

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to draw up deeds, contracts, mortgages, wills and other legal documents
- **Verbal ability** to administer oaths and take affidavits and depositions
- **Clerical perception** to draft contracts, prepare promissory notes and draw up wills, mortgages and other legal documents
- **Methodical interest** in compiling information to witness and certify signatures on documents
- **Directive interest** in administering estates of deceased persons and in arranging probates
- **Social interest** in speaking to represent clients in non-contentious proceedings such as appointing guardians, settling estates, satisfying such liabilities as taxes and debts, and searching and clearing of property titles

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

5, R

- Notaries public require completion of a one-year university notary-public course *and* in-house training in a law office, notaries public office, bank, trust company, insurance or real estate firm.

- Notaries public require a provincial licence. In British Columbia, membership in the Society of Notaries Public is also required.

Similar Occupations Classified Elsewhere

Legal Secretaries (1242)

Articling students, Quebec notaries and trademark lawyers (in 4112 *Lawyers and Quebec Notaries*)

Patent agents (in 4161 *Natural and Applied Science Policy Researchers, Consultants and Program Officers*)

Workplaces/Employers

Law firms

Legal departments throughout the public and private sectors

4211.3 Trade Mark Agents

Trade Mark Agents research and prepare trademark applications.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

Mds

DATA, PEOPLE, THINGS (DPT)

368

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, R

Examples of Job Titles

Trade Mark Agent

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to research, prepare and present applications for trademark certifications
- **Verbal ability** to understand and interpret trademark laws and regulations to clients
- **Clerical perception** in preparing documents related to transfers and assignments of trademarks, changes of agent and other related matters
- **Methodical interest** in compiling information to search trademark registries in order to determine whether trademarks have been registered
- **Directive interest** in providing advice to clients on trademark laws and regulations
- **Social interest** in speaking with clients to represent their interest in applications for trademark registrations

Physical Activities

Vision
2 Near vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
1 Sitting

Limb Co-ordination
0 Not relevant

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
5+, R

- Trademark agents require two years of in-house training under the supervision of a registered trademark agent and successful completion of an examination conducted by the Patent and Trade Mark Institute of Canada.
- Trademark agents require registration with the federal Trade Mark Office.

Workplaces/Employers

Trademark development and searching firms
Self-employment

Similar Occupations Classified Elsewhere

Legal Secretaries (1242)

Articling students, Quebec notaries and trademark lawyers (in 4112 *Lawyers and Quebec Notaries*)

Patent agents (in 4161 *Natural and Applied Science Policy Researchers, Consultants and Program Officers*)

4211.4 Independent Paralegals

Independent Paralegals provide certain legal services to the public as allowed by provincial legislation.

Profile Summary									
APTITUDES									
G	V	N	S	P	Q	K	F	M	
3	2	3	4	4	3	4	4	4	
INTERESTS									
SMD									
DATA, PEOPLE, THINGS (DPT)									
328									
PHYSICAL ACTIVITIES (PA)									
V	C	H	B	L	S				
2	0	2	1	0	1				
ENVIRONMENTAL CONDITIONS (EC)									
L1									
EDUCATION/TRAINING									
4									

Examples of Job Titles

Independent Paralegal

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to take legal action on landlord and tenant matters, traffic violations, name changes and other issues within their jurisdictions
- **Verbal ability** to discuss details of legal matters with clients
- **Clerical perception** to draft briefs, pleadings, contracts, mortgages and other documents
- **Social interest** in locating and interviewing witnesses
- **Methodical interest** in compiling information to search and study records, documents and information
- **Directive interest** in consulting with and advising clients; and in representing clients in small claims court and other court proceedings

Physical Activities

- Vision
- 2 Near vision
- Colour Discrimination
- 0 Not relevant
- Hearing
- 2 Verbal interaction
- Body Position
- 1 Sitting
- Limb Co-ordination
- 0 Not relevant
- Strength
- 1 Limited

Environmental Conditions

- Location
- L1 Regulated inside climate

Employment Requirements

- Education/Training
- 4
- Independent paralegals require knowledge of legal principles and procedures usually obtained through industry-sponsored courses and through experience.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

Legal Secretaries (1242)

Articling students, Quebec notaries and trademark lawyers (in 4112 *Lawyers and Quebec Notaries*)

Patent agents (in 4161 *Natural and Applied Science Policy Researchers, Consultants and Program Officers*)

4212 Community and Social Service Workers

Community and Social Service Workers administer and implement social assistance programs and community services, and assist clients in dealing with personal and social problems.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	4	4	4

INTERESTS

SMi

DATA, PEOPLE, THINGS (DPT)

328

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2, 6, 7

Examples of Job Titles

Addictions Worker
Community Development Worker
Community Service Worker
Crisis Intervention Worker
Developmental Service Worker
Drop-In Centre Worker
Family Service Worker
Financial Assistance Worker
Group Home Worker
Income Maintenance Officer
Life Skills Instructor
Mental Health Worker
Native Outreach Worker
Rehabilitation Worker
Veterans Service Officer
Welfare and Compensation Officer
Women's Centre Co-ordinator
Youth Worker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess and investigate clients' eligibility for social benefits and to assist in evaluating the effectiveness of treatment programs by tracking clients' behavioural changes and responses to interventions
- **Verbal ability** to meet with clients to discuss their progress, to interview clients in order to obtain case histories and background information, and to provide crisis intervention
- **Clerical perception** to prepare intake reports
- **Social interest** in consulting with social assistance recipients and pensioners to advise and aid them; and in referring clients to other social services; in counselling, providing assistance and supervising clients living in group homes and halfway houses; and in providing crisis intervention and emergency-shelter services
- **Methodical interest** in compiling information to maintain contact with other social service agencies involved with clients to provide information and obtain feedback on clients' overall progress
- **Innovative interest** in implementing life-skills workshops, substance-abuse treatment programs, youth services programs and other community and social service programs under the supervision of social workers and health care professionals

Physical Activities

Vision	2	Near vision
Colour Discrimination	0	Not relevant
Hearing	2	Verbal interaction
Body Position	1	Sitting
Limb Co-ordination	0	Not relevant
Strength	1	Limited

Environmental Conditions

Location	L1	Regulated inside climate
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Employment Requirements

- Education/Training
2, 6, 7
- Completion of a college or university program in social work, counselling or another social science discipline is usually required.
 - Previous work experience in a social service environment as a volunteer, or in a support capacity, may replace formal educational requirements for some occupations in this group.

Workplaces/Employers

- Correctional facilities
Government agencies
Group homes
Social service agencies

Occupational Options

Progression to professional occupations in social services, such as family and marriage counsellors, social workers and probation and parole officers, is possible with additional training and/or experience.

Similar Occupations Classified Elsewhere

- Employment Counsellors (4213)*
Family, Marriage and Other Related Counsellors (4153)
Managers in Social, Community and Correctional Services (0314)
Probation and Parole Officers and Related Occupations (4155)
Program Leaders and Instructors in Recreation and Sport (5254)
School and Guidance Counsellors (4143)
Social Workers (4152)

4213 Employment Counsellors

Employment Counsellors provide assistance, counsel and information to workers on all aspects of employment search and career planning. They also provide counsel and information to employers regarding human resource and employment issues.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	3	4	4	3	4	4	4

INTERESTS

SMI

DATA, PEOPLE, THINGS (DPT)

328

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 6, 7

Examples of Job Titles

Career Counsellor
Employment Counsellor
Occupational Counsellor
Outplacement Counsellor
Relocation Consultant
Relocation Counsellor
Supervisor, Employment Counsellors
Vocational Counsellor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assess clients' needs for assistance such as rehabilitation, financial aid and further vocational training
- **Verbal ability** to interview clients to obtain employment history, educational background and career goals
- **Social interest in consulting** to advise employers on human resource and other employment-related issues, to refer clients to the appropriate services and to assist clients in developing job readiness skills and job search strategies
- **Methodical interest in compiling** information to collect labour market information for clients regarding job openings, entry and skill requirements and other occupational information; and in administering tests designed to determine interests, aptitudes and abilities
- **Innovative interest** in interpreting test results and identifying barriers to employment

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

- Education/Training
4, 6, 7
- A bachelor’s degree or college diploma in a related field, such as psychology, social services or education, is usually required.
 - Completion of secondary school and several years of experience in services related to counselling, or in a helping profession, may replace formal education.

Workplaces/Employers

Federal government
Large establishments
Private employment service agencies
Provincial government

Occupational Options

Mobility to positions in personnel or training is possible.
Progression to supervisory positions is possible through experience.

Similar Occupations Classified Elsewhere

Personnel and Recruitment Officers
(1223)
School and Guidance Counsellors
(4143)
Unemployment insurance officers
(in 1228 *Immigration, Unemployment Insurance and Revenue Officers*)
Vocational rehabilitation counsellors
(in 4153 *Family, Marriage and Other Related Counsellors*)

Remarks

Supervisors of employment counsellors are included in this group.

4214 Early Childhood Educators

Early Childhood Educators plan, organize and lead activities for pre-school children that help to develop their intellectual, physical and emotional growth. This group includes Early Childhood Educators who are supervisors.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	4	4	4	4

INTERESTS

SMd

DATA, PEOPLE, THINGS (DPT)

327

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	4	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Child-Care Worker, Day Care
Day-Care Supervisor
Day-Care Worker
Early Childhood Educator
Early Childhood Supervisor
Early Childhood Program Staff
Pre-School Supervisor
Pre-School Teacher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, develop and organize daily activities for children, and to observe children for signs of learning disabilities and emotional problems
- **Verbal ability** to discuss progress or problems of children with parents and other staff members, and to attend meetings and workshops to develop and discuss new teaching methods
- **Social interest in instructing** and guiding children in the development of proper eating, dressing and personal hygiene; and in leading children in activities by telling or reading stories, teaching songs and taking them to local points of interest
- **Methodical interest in handling** to prepare and demonstrate the use of craft materials and to demonstrate the use of simple musical instruments
- **Directive interest in compiling** information to develop daily activities for children; may supervise and co-ordinate the activities of other early childhood educators and assistants

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training

6, 7

- A bachelor's degree or college diploma in early childhood education or a bachelor's degree in education is required.

Workplaces/Employers

Day-care centers

Nursery schools

Occupational Options

Progression to senior positions, such as day-care supervisor, is possible with experience.

Similar Occupations Classified Elsewhere

Early Childhood Educator Assistants (6473)

Elementary School and Kindergarten Teachers (4142)

Teacher's aides (in 6472 *Elementary and Secondary School Teacher Assistants*)

Remarks

In data provided by Statistics Canada, groups 4214 and 6473 are combined to form 6470 *Early Childhood Educators and Assistants*.

4215 Instructors and Teachers of Disabled Persons

Instructors and Teachers of Disabled Persons teach children and adults with physical and mental disabilities communication techniques such as braille, sign language and rehabilitation skills to increase their independence and mobility.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	3	3	3

INTERESTS

SMO

DATA, PEOPLE, THINGS (DPT)

324

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3*	1*	2*

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+, R

Examples of Job Titles

Instructor, Orientation and Mobility
Rehabilitation Instructor
Sign Language Instructor
Teacher of the Hearing Impaired
Teacher of Braille
Teacher of the Blind
Teacher of the Mentally Handicapped
Teacher of the Physically Disabled
Teacher, Rehabilitation

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to evaluate students' abilities and limitations in order to develop teaching programs that will result in maximum progress, to assess needs of students, and to adapt school curriculum and teaching methods to meet students' requirements
- **Verbal ability** to prepare reports on student progress and instruct students with hearing impairments in the formation and development of sounds for speech
- **Social interest in instructing** and assisting individuals with physical and mental disabilities to develop life skills, and to encourage classroom discussions that assist students in developing social skills and identifying objects and situations encountered in daily living
- **Methodical interest in compiling** information to instruct students who are deaf or have hearing impairments in lip-reading, finger-spelling and sign language according to individual needs, and to instruct students who are blind or have visual impairments in reading and writing braille
- **Objective interest in operating** equipment designed to minimize the effects of a disability, such as hearing aids, prosthetic devices, wheelchairs and other devices, in order to instruct individuals with physical disabilities and their families in the use of this equipment; and in advising these individuals and their families about rehabilitative techniques

Physical Activities

Vision
2 Near vision
Colour Discrimination
0 Not relevant
Hearing
2 Verbal interaction
Body Position
3* Sitting, standing, walking
Limb Co-ordination
1* Upper limb co-ordination
Strength
2* Light

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

- Education/Training
7+, R
- A bachelor's degree in education or a related field, such as psychology or social work, is usually required.
 - Completion of appropriate training program in rehabilitation or special education is required.
 - Instructors of the blind require certification by the Canadian National Institute for the Blind.
 - Teachers who work in a public school system require a provincial teaching certificate.

Workplaces/Employers

Elementary and secondary schools
Rehabilitation centers

Similar Occupations Classified Elsewhere

- Early Childhood Educators* (4214)
Early Childhood Educator Assistants (6473)
Elementary School and Kindergarten Teachers (4142)
Elementary and Secondary School Teacher Assistants (6472)
Secondary School Teachers (4141)

Remarks

- *Physical Activities
- For some occupations in this group, the following **Body Position** 4 (Other body positions), **Limb Co-ordination** 1 (Upper limb co-ordination) and **Strength** 4 (Heavy) may also apply.

4216.1 Driving Instructors

Driving Instructors teach courses that are outside of educational institutions and not job-related in motor vehicle and motorcycle driving.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	4	4	3	4	3

INTERESTS

SDM

DATA, PEOPLE, THINGS (DPT)

323

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	2	1	2	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L4

EDUCATION/TRAINING

1+, R

Examples of Job Titles

Driving Instructor

Motorcycle Driving Instructor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the principles of driving motor vehicles in order to explain and demonstrate operation of brakes, clutches, gear shifts, automatic transmissions, signals and lights
- **Verbal ability** to explain driving techniques to individuals and groups
- **Spatial perception** to supervise individuals during practice driving
- **Motor co-ordination and manual dexterity** to demonstrate motor vehicle operations
- **Social interest in compiling** information to explain and demonstrate the operations of motor vehicles; and in explaining traffic regulations and insurance laws
- **Directive interest in instructing** individuals and groups; and in supervising individuals during practice driving
- **Methodical interest in driving** to demonstrate techniques, handling and operations of motor vehicles

Physical Activities

- Vision
- 4 Total visual field
- Colour Discrimination
- 0 Not relevant

- Hearing
- 2 Verbal interaction

- Body Position
- 1 Sitting

- Limb Co-ordination
- 2 Multiple limb co-ordination

- Strength
- 1 Limited

Environmental Conditions

- Location
- L1 Regulated inside climate
 - L4 In a vehicle or cab

Employment Requirements

Education/Training

1+, R

- Expertise in the field of instruction must be demonstrated.
- Driving instructors must obtain special licensing as a driving instructor in the province of employment.

Workplaces/Employers

Commercial establishments

Driving schools

Provincial governments

Self-employment

Similar Occupations Classified Elsewhere

College and Other Vocational Instructors (4131)

Elementary School and Kindergarten Teachers (4142)

Secondary School Teachers (4141)

4216.2 Driver's Licence Examiners

Driver's Licence Examiners conduct road tests and evaluate driving ability of individuals.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	4	3	4	4	4

INTERESTS

DMS

DATA, PEOPLE, THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L4

EDUCATION/TRAINING

1+

Examples of Job Titles

Driver's Licence Examiner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand the principles of driving motor vehicles and to evaluate the driving ability of applicants for driver's licences
- **Verbal ability** to explain results of road test examinations to potential drivers
- **Spatial perception** to visualize position and path of own vehicle in relation to surroundings and to judge distances
- **Directive interest** in analyzing written and visual examinations and in rating driving ability for each road test manoeuvre; and in conducting road test examinations
- **Methodical interest** in collecting fees and issuing licences and instruction permits according to test results
- **Social interest** in speaking with drivers to discuss proper driving methods, point out poor driving habits and advise on methods of correction

Physical Activities

Vision	
4	Total visual field
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate
L4	In a vehicle or cab

Employment Requirements

Education/Training	
1+	
■ Expertise in the field of instruction must be demonstrated.	

Workplaces/Employers

Provincial governments	
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Similar Occupations Classified Elsewhere

<i>College and Other Vocational Instructors (4131)</i>	
<i>Elementary School and Kindergarten Teachers (4142)</i>	
<i>Secondary School Teachers (4141)</i>	

4216.3 Sewing Instructors

Sewing Instructors teach sewing courses that are outside of educational institutions and not job-related.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	2	3	4	3	3	4

INTERESTS

SDM

DATA, PEOPLE, THINGS (DPT)

322

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	3	2	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

1+

Examples of Job Titles

Sewing Instructor - Non-vocational

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to instruct students in the operation and basic maintenance of sewing machines
- **Verbal ability** to conduct classes in sewing and tailoring
- **Spatial and form perception** to demonstrate how to lay and pin patterns onto material and how to cut out patterns according to symbols and markings
- **Motor co-ordination** to operate sewing machines and to demonstrate pressing and steaming techniques
- **Finger dexterity** to teach hand-basting, hemming and other basic hand-sewing techniques
- **Social interest in compiling** information to instruct students on choice of garments; and in explaining fabric types and advising students on selection of fabrics and sewing notions
- **Directive interest in instructing** students in techniques and skills of sewing, tailoring, dressmaking and altering patterns according to body measurements
- **Methodical interest in controlling** the operations of sewing machines to demonstrate button-holing, installation of zippers and other techniques; and in servicing and repairing machines

Physical Activities

- Vision
- 1 Close visual acuity
- Colour Discrimination
- 1 Relevant

- Hearing
- 2 Verbal interaction

- Body Position
- 3 Sitting, standing, walking

- Limb Co-ordination
- 2 Multiple limb co-ordination

- Strength
- 1 Limited

Environmental Conditions

- Location
- L1 Regulated inside climate

Employment Requirements

- Education/Training
- 1+
- Expertise in the field of instruction must be demonstrated.

Workplaces/Employers

- Commercial establishments
- Fabric retailers
- Self-employment

Similar Occupations Classified Elsewhere

- College and Other Vocational Instructors (4131)*
- Elementary School and Kindergarten Teachers (4142)*
- Secondary School Teachers (4141)*

4216.4 Modelling and Finishing School Instructors

Modelling and Finishing School Instructors teach modelling courses that are outside of educational institutions and not job-related.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	4	4	4

INTERESTS

SDM

DATA, PEOPLE, THINGS (DPT)

328

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	2	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

1+

Examples of Job Titles

Instructor, Modelling and Finishing School

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to observe appearance to determine complexion, figure and posture types
- **Verbal ability** to instruct individuals and groups
- **Spatial and form perception** to instruct students on posture and graceful walking, sitting and other movements
- **Social interest** in advising students on selection of basic wardrobes and choices of hairstyles
- **Directive interest** in instructing students on comportment, personal development, make-up application and modelling techniques for fashion shows and magazine advertising
- **Methodical interest** in compiling information to outline accepted rules of etiquette; and in demonstrating correct posture, sitting, walking and other movements

Physical Activities

- Vision
- 3 Near and far vision
- Colour Discrimination
- 1 Relevant

- Hearing
- 2 Verbal interaction

- Body Position
- 3 Sitting standing, walking

- Limb Co-ordination
- 2 Multiple limb co-ordination

- Strength
- 1 Limited

Environmental Conditions

- Location
- L1 Regulated inside climate

Employment Requirements

- Education/Training
- 1+
- Expertise in the field of instruction must be demonstrated.

Workplaces/Employers

- Commercial establishments
- Self-employment

Similar Occupations Classified Elsewhere

- College and Other Vocational Instructors (4131)*
- Elementary School and Kindergarten Teachers (4142)*
- Secondary School Teachers (4141)*

4217 Other Religious Occupations

This group includes brothers, nuns, monks, religious education workers and others who provide support to ministers of religion or to religious communities and who perform certain functions associated with religious practices.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	4	4	4	4

INTERESTS

MSi

DATA, PEOPLE, THINGS (DPT)

328

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

3, 4, 5, 6, 7, +

Examples of Job Titles

Brother
Cantor
Christian Science Practitioner
Deacon
Mohel
Monk
Nun
Religious Education Worker
Salvation Army Field Worker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to provide religious education, spiritual instruction and guidance, and moral support to members of religious communities
- **Verbal ability** to understand and communicate religious teachings
- **Methodical interest in compiling** information to assist at services of public worship and religious rites
- **Social interest in instructing** members in religious education and in promoting participation in extracurricular religious-community activities; and in visiting members' homes to solicit support and participation and to stimulate interest in religious programs
- **Innovative interest** in administering programs providing food, clothing and shelter

Physical Activities

Vision	2	Near vision
Colour Discrimination	0	Not relevant
Hearing	2	Verbal interaction
Body Position	3	Sitting, standing, walking
Limb Co-ordination	0	Not relevant
Strength	1	Limited

Environmental Conditions

Location	L1	Regulated inside climate
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Employment Requirements

- Education/Training
3, 4, 5, 6, 7, +
- Requirements range from completion of secondary school education to a university undergraduate degree, depending on the particular occupation and religion.
 - There may be other admittance requirements depending on the particular occupation and religion.

Workplaces/Employers

- Churches
- Institutions such as schools, hospitals and prisons
- Places of worship
- Synagogues
- Temples

Similar Occupations Classified Elsewhere

Ministers of Religion (4154)

Occupations in Art, Culture, Recreation and Sport



Occupations in Art, Culture, Recreation and Sport

MAJOR GROUP 51

PROFESSIONAL OCCUPATIONS IN ART AND CULTURE

511 Librarians, Archivists, Conservators and Curators

- 5111 Librarians
- 5112 Conservators and Curators
 - 5112.1 Conservators
 - 5112.2 Curators
- 5113 Archivists

512 Writing, Translating and Public Relations Professionals

- 5121 Writers
 - 5121.1 Creative Writers
 - 5121.2 Technical Writers
 - 5121.3 Copywriters
- 5122 Editors
- 5123 Journalists
- 5124 Professional Occupations in Public Relations and Communications
- 5125 Translators, Terminologists and Interpreters
 - 5125.1 Translators
 - 5125.2 Terminologists
 - 5125.3 Interpreters

513 Creative and Performing Artists

- 5131 Producers, Directors, Choreographers and Related Occupations
 - 5131.1 Film, Television and Radio Producers
 - 5131.2 Directors
 - 5131.3 Choreographers
 - 5131.4 Art Directors
 - 5131.5 Film Editors
 - 5131.6 Record Producers
 - 5131.7 Directors of Photography
- 5132 Conductors, Composers and Arrangers
 - 5132.1 Conductors
 - 5132.2 Composers
 - 5132.3 Arrangers
- 5133 Musicians and Singers
 - 5133.1 Musicians
 - 5133.2 Singers
 - 5133.3 Teachers of Music or Voice
- 5134 Dancers
 - 5134.1 Dancers
 - 5134.2 Dance Teachers

- 5135 Actors
 - 5135.1 Actors
 - 5135.2 Acting Teachers
- 5136 Painters, Sculptors and Other Visual Artists
 - 5136.1 Painters
 - 5136.2 Sculptors
 - 5136.3 Art Instructors and Teachers

MAJOR GROUP 52
TECHNICAL AND SKILLED OCCUPATIONS
IN ART, CULTURE, RECREATION AND SPORT

521 Technical Occupations in Libraries, Archives, Museums and Galleries

- 5211 Library and Archive Technicians and Assistants
- 5212 Technical Occupations Related to Museums and Galleries
 - 5212.1 Conservation and Restoration Technicians
 - 5212.2 Curatorial Assistants
 - 5212.3 Museum Guides and Interpreters
 - 5212.4 Museum Extension Officers
 - 5212.5 Museum Registrars and Cataloguers
 - 5212.6 Preparators
 - 5212.7 Picture Framers
 - 5212.8 Taxidermists

522 Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts

- 5221 Photographers
- 5222 Film and Video Camera Operators
- 5223 Graphic Arts Technicians
 - 5223.1 Animation Painters
 - 5223.2 Copy Stylists
 - 5223.3 Paste-Up Artists
 - 5223.4 Sign Painters
 - 5223.5 Stencil Makers
 - 5223.6 Lettering Artists
- 5224 Broadcast Technicians
- 5225 Audio and Video Recording Technicians
- 5226 Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts
 - 5226.1 Floor Directors
 - 5226.2 Key Grips
 - 5226.3 Gaffers and Lighting Technicians
 - 5226.4 Stunt Co-ordinators and Special Effects Technicians
 - 5226.5 Make-Up Artists
 - 5226.6 Wardrobe Supervisors
 - 5226.7 Other Workers in Motion Pictures, Broadcasting and the Performing Arts

- 5227 Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts
 - 5227.1 Grips
 - 5227.2 Motion Picture Projectionists
 - 5227.3 Props Persons and Set Dressers
 - 5227.4 Script Assistants
 - 5227.5 Stagehands and Riggers
 - 5227.6 Wardrobe Attendants

523 Announcers and Other Performers

- 5231 Announcers and Other Broadcasters
- 5232 Other Performers
 - 5232.1 Buskers
 - 5232.2 Circus Performers
 - 5232.3 Magicians and Illusionists
 - 5232.4 Models
 - 5232.5 Puppeteers

524 Creative Designers and Craftpersons

- 5241 Graphic Designers and Illustrating Artists
- 5242 Interior Designers
- 5243 Theatre, Fashion, Exhibit and Other Creative Designers
 - 5243.1 Theatre Designers
 - 5243.2 Fashion Designers
 - 5243.3 Exhibit Designers
- 5244 Artisans and Craftpersons
 - 5244.1 Carvers
 - 5244.2 Glass Blowers
 - 5244.3 Metal Arts Workers
 - 5244.4 Potters
 - 5244.5 Stained Glass Artists
 - 5244.6 Stringed Instrument Makers
 - 5244.7 Weavers
 - 5244.8 Craft Instructors
- 5245 Patternmakers – Textile, Leather and Fur Products

525 Athletes, Coaches, Referees and Related Occupations

- 5251 Athletes
- 5252 Coaches
 - 5252.1 Coaches
 - 5252.2 Sports Scouts
- 5253 Sports Officials and Referees
- 5254 Program Leaders and Instructors in Recreation and Sport

5111 Librarians

Librarians develop, organize and maintain library collections and provide advisory services for users.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

MSd

DATA PEOPLE THINGS (DPT)

124

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Bibliographer
Cataloguer
Librarian
Library Consultant
Supervisor, Library

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to classify and catalogue library materials and develop systems to gain access to library collections
- **Verbal ability** to provide advisory services for users, and analyze publishers' catalogues to recommend acquisition of books, periodicals, and audio-visual and other materials
- **Clerical perception** to prepare bibliographies, indexes, reading lists, guides and other finding aids, to consult references, to verify information and to record data
- **Methodical interest in operating** on-line reference searches and conducting manual searches; and in making interlibrary loans and performing other functions to maintain collections, files, catalogues and indexes
- **Social interest in instructing** and assisting users in finding library materials; and in providing specialized programs such as story time reading for children
- **Directive interest in co-ordinating** information to conduct library information and orientation training sessions; and in supervising library technicians, assistants and clerks

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

8

- A master's degree in library science is required.

Workplaces/Employers

Libraries or in a department within a library

Occupational Options

Progression to library management positions is possible with experience.

Similar Occupations Classified Elsewhere

Library managers (in 0511 *Library, Archive, Museum and Art Gallery Managers*)

Medical records librarians (in 1413 *Records and File Clerks*)

School librarians (in 4141 *Secondary School Teachers* and in 4142 *Elementary School and Kindergarten Teachers*)

5112.1 Conservators

Conservators restore and conserve museum and gallery artifacts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	2	4	3	3	3

INTERESTS

Dim

DATA PEOPLE THINGS (DPT)

221

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, D3*, D4*

EDUCATION/TRAINING

6+, 8

Examples of Job Titles

Conservationist, Art Objects

Conservator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to restore and conserve paintings, photographs, sculptures, furniture, pottery and other museum and art gallery artifacts, and to examine artifacts using various scientific techniques and other means to determine the most appropriate method of restoration
- **Verbal ability** to provide consultation to museums, art galleries and private individuals
- **Spatial and form perception** to perceive detail in pictures, maps and other objects to make visual discriminations and observe slight differences in quality, texture, shadings and other characteristics to determine value and authenticity
- **Directive interest in instructing** to advise on display and storage of museum and gallery artifacts to ensure proper maintenance and preservation; and in supervising conservation and other museum technicians
- **Innovative interest in precision working** to conserve and restore antiquities and works of art using aesthetic sensibility and manual and artistic skills
- **Methodical interest in analyzing** information to account for, acquire and receive archival material; and in checking detail, recording information and filing material

Physical Activities

Vision
1 Close visual acuity

Colour Discrimination
1 Relevant

Hearing
2 Verbal interaction

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Discomforts
D3*Odours
D4*Non-toxic dusts

Employment Requirements

Education/Training
6+, 8

- Conservators require a master's degree in art conservation or completion of a three-year college program in conservation technology and several years of experience in conservation work.

Workplaces/Employers

Art galleries
Museums
Self-employment

Occupational Options

Progression to museum or art gallery management positions is possible with experience.

Similar Occupations Classified Elsewhere

Curatorial assistants (in 5212 *Technical Occupations Related to Museums and Galleries*)

Museum designers (in 5243 *Theatre, Fashion, Exhibit and Other Creative Designers*)

Museum educators (in 5124 *Professional Occupations in Public Relations and Communications*)

Remarks

Conservators may specialize in a particular type of collection or material.

*Environmental Conditions

- For some occupations in this group, Discomforts D3 (Odours) and D4 (Non-toxic dusts) may also apply.

5112.2 Curators

Curators research and recommend the acquisition of museum and gallery artifacts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	2	4	3	3	3

INTERESTS

DMI

DATA PEOPLE THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7, 8

Examples of Job Titles

Assistant Curator

Curator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to research origins and history of artifacts, conduct research in area of specialization, and organize expeditions engaged in research and discovery
- **Verbal ability** to exchange scientific, educational and cultural information with scientists, institutions and other organizations
- **Form perception** to co-ordinate selection of materials, design and installation of displays and exhibitions
- **Directive interest in consulting** to recommend the acquisition of paintings, photographs, sculptures, documents and other museum and art gallery artifacts; and in co-ordinating the storage of collections and the set-up of displays and exhibitions, and in supervising curatorial assistants and other museum technicians
- **Methodical interest** in ensuring that storage conditions are maintained for collections
- **Innovative interest in co-ordinating** information to develop story lines and themes of displays and exhibitions

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

7, 8

- Curators require a master's or bachelor's degree in museology, art history or a field related to their specific area of work.

Workplaces/Employers

Art galleries

Museums

Occupational Options

Progression to museum or art gallery management positions is possible with experience.

Similar Occupations Classified Elsewhere

Curatorial assistants (in 5212 *Technical Occupations Related to Museums and Galleries*)

Museum designers (in 5243 *Theatre, Fashion, Exhibit and Other Creative Designers*)

Museum educators (in 5124 *Professional Occupations in Public Relations and Communications*)

Remarks

Curators may specialize in a particular type of collection or material.

5113 Archivists

Archivists acquire, research and store historical documents, photographs, maps, and audio-visual and other archival materials.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	2	2	4	4	4

INTERESTS

MIS

DATA PEOPLE THINGS (DPT)

124

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	SI
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Archivist

Chief Archivist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to appraise and acquire materials to develop and maintain archival collections, to authenticate historical documents and records, and to research the origins and historical significance of archival materials
- **Verbal ability** to prepare speeches, lectures, articles and reports, and to respond to requests for information
- **Form perception** to perceive detail in manuscripts, pictures, maps, photographs and other documents to determine historical value and authenticity
- **Clerical perception** to organize records and maintain collections
- **Methodical interest** in operating automated reference searches; and in performing manual searches for users, and in ensuring preservation and storage of historical documents, photographs, maps, audio-visual material, manuscripts, public and corporate records and other archival materials
- **Innovative interest** in coordinating information to develop classification systems that allow access to materials
- **Social interest** in instructing and assisting users in accessing materials

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
1	Limited
Body Position	
1	Sitting
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
8

- A master's degree in archival studies, library science or history is usually required.

Workplaces/Employers

Agencies
Archives
Government departments
Libraries
Private-sector organizations

Occupational Options

Progression to archive management positions is possible with experience.

Similar Occupations Classified Elsewhere

Librarians (5111)

Library, Archive, Museum and Art Gallery Managers (0511)

Archive assistants (in 5211 Library and Archive Technicians and Assistants)

5121.1 Creative Writers

Creative Writers plan, research and write books, scripts, plays, essays and speeches for publication and presentation.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	4	4	4	3	4	4	4

INTERESTS

IMd

DATA PEOPLE THINGS (DPT)

048

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

1+, 6+, 7+

Examples of Job Titles

Essayist
Humorist
Novelist
Playwright
Poet
Script Writer
Short-Story Writer
Speech Writer
Television Writer
Writer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the principles and techniques of writing; may conduct research to obtain and verify factual content
- **Verbal ability** to understand words and associated ideas, and to use them orally and in written form
- **Innovative interest** in synthesizing information to conceive and write novels, plays, scripts, poetry and other material for publication and presentation
- **Methodical interest** in revising work to ensure coherence and proper development of style, theme, plot and characterization
- **Directive interest** in diverting and entertaining an audience by choosing and developing themes, characters, plots and subjects of published and presented work

Physical Activities

Vision	2	Near vision
Colour Discrimination	0	Not relevant
Hearing	1	Limited
Body Position	1	Sitting
Limb Co-ordination	1	Upper limb co-ordination
Strength	1	Limited

Environmental Conditions

Location	L1	Regulated inside climate
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Employment Requirements

- Education/Training
1+, 6+, 7+
- Creative writing programs are offered by universities and colleges.
 - Talent and ability, as demonstrated by a portfolio of work, are important hiring criteria.

Workplaces/Employers

- Advertising agencies
Governments
Large corporations
Private consulting firms
Publishing firms
Self-employment

Similar Occupations Classified Elsewhere

- Editors (5122)
Journalists (5123)
Professional Occupations in Public Relations and Communications (5124)
Translators, Terminologists and Interpreters (5125)
Song writers (in 5132 Conductors, Composers and Arrangers)

Remarks

Writers may specialize in a particular subject or type of writing.

5121.2 Technical Writers

Technical Writers plan, research and write manuals, specifications and other non-journalistic articles for publication and presentation.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	4	3	3	3	4	4	4

INTERESTS

IMo

DATA PEOPLE THINGS (DPT)

028

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+

Examples of Job Titles

Scientific Writer

Specifications Writer

Technical Writer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to analyze specifications, notes, drawings and technical information to acquire knowledge of products in order to prepare manuals, user guides and other documents
- **Verbal ability** to understand words and associated ideas, and to use them to explain the installation, operation and maintenance of electronic, mechanical and other equipment
- **Innovative interest** in synthesizing information to write manuals, user guides and other documents; may assist in the preparation and layout of publications
- **Methodical interest** in instructing to explain the installation, operation and maintenance of electronic, mechanical and other equipment
- **Objective interest** in understanding the operation and functioning of equipment to prepare and write manuals, user guides and other documents

Physical Activities

- Vision
- 2Near vision
- Colour Discrimination
- 0Not relevant

- Hearing
- 1Limited

- Body Position
- 1Sitting

- Limb Co-ordination
- 1Upper limb co-ordination

- Strength
- 1Limited

Environmental Conditions

- Location
- L1Regulated inside climate

Employment Requirements

- Education/Training
- 7+

- Technical writers usually require a university degree in the area of specialization, such as computer science or engineering.
- Talent and ability, as demonstrated by a portfolio of work, are important hiring criteria.

Workplaces/Employers

- Advertising agencies
- Governments
- Large corporations
- Private consulting firms
- Publishing firms
- Self-employment

Similar Occupations Classified Elsewhere

- Editors (5122)
- Journalists (5123)
- Professional Occupations in Public Relations and Communications (5124)
- Translators, Terminologists and Interpreters (5125)
- Song writers (in 5132 Conductors, Composers and Arrangers)

Remarks

Writers may specialize in a particular subject or type of writing.

5121.3 Copywriters

Copywriters plan, research and write advertisements and commercials.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	4	3	3	3	4	4	4

INTERESTS

IMd

DATA PEOPLE THINGS (DPT)

058

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Advertising Copywriter
Copywriter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to study and determine selling features of products and services to write advertising text
- **Verbal ability** to use words to achieve a desired effect when planning and writing headlines and text
- **Innovative interest** in synthesizing information to write text for advertisements and commercials
- **Methodical interest** in studying products and services to be advertised, and in submitting copy to editor for approval
- **Directive interest** in persuading audiences by determining the most effective advertising approach, including text, style and length of copy

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant

Hearing	
1	Limited

Body Position	
1	Sitting

Limb Co-ordination	
1	Upper limb co-ordination

Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+, 7+

- Copywriters usually require a university degree or college diploma in English, French, marketing or other discipline.
- Talent and ability, as demonstrated by a portfolio of work, are important hiring criteria.

Workplaces/Employers

Advertising agencies
Governments
Large corporations
Private consulting firms
Publishing firms
Self-employment

Similar Occupations Classified Elsewhere

Editors (5122)

Journalists (5123)

Professional Occupations in Public Relations and Communications (5124)

Translators, Terminologists and Interpreters (5125)

Song writers (in 5132 Conductors, Composers and Arrangers)

Remarks

Writers may specialize in a particular subject or type of writing.

5122 Editors

Editors review, evaluate and edit manuscripts, articles, news reports and other material for publication and broadcast, and co-ordinate the activities of writers, journalists and other staff.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	3	3	4	3	4	4	4

INTERESTS

DIS

DATA PEOPLE THINGS (DPT)

218

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

7+

Examples of Job Titles

Advertising Editor

Art Editor

Associate Editor

Copy Editor

Editor

Manuscript Editor

News Editor

Photo Editor

Production Editor

Script Editor

Sports Editor

Technical Editor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to evaluate suitability of manuscripts, articles, news copy and wire service dispatches for publication and broadcast, and to recommend and make changes in content, style and organization
- **Verbal ability** to understand words and use them to read and edit copy to be published and broadcast
- **Clerical perception** to detect and correct errors in spelling, grammar and syntax, and to shorten or lengthen copy as space or time requires
- **Directive interest** to plan and co-ordinate activities of staff to assure production deadlines are met, and to plan coverage of upcoming events and assign work
- **Innovative interest in analyzing** information to plan layout or length of copy according to space and time allocations and significance of topics in copy
- **Social interest in negotiating** with authors, staff writers, reporters and others regarding revisions to copy; may negotiate royalties with authors and initiate payments to free-lance writers and designers

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
1	Sitting
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
7+

- A bachelor's degree in journalism, English, French or a related discipline is usually required.
- Several years of experience in journalism, writing, publishing or a related field are usually required.

Workplaces/Employers

Free-lance
Journals
Magazines
Newspapers
Publications departments within government
Publishing firms
Radio stations
Television networks and stations

Occupational Options

Progression to management positions, such as editor-in-chief or managing editor, is possible with experience.

Similar Occupations Classified Elsewhere

Editorial assistants (in 1452 *Correspondence, Publication and Related Clerks*)
Film editors (in 5131 *Producers, Directors, Choreographers and Related Occupations*)
Journalists (5123)
Managing editors (in 0512 *Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts*)
Map editors (in 2255 *Mapping and Related Technologists and Technicians*)
Sound editors (in 5225 *Audio and Video Recording Technicians*)
Writers (5121)

Remarks

Editors may specialize in a particular subject area, such as news, sports or features, or in a particular type of publication, such as books, magazines, newspapers or manuals.

5123 Journalists

Journalists research, investigate, interpret and communicate news and public affairs through newspapers, television, radio and other media.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	3	4	4	3	4	4	4

INTERESTS

ISM

DATA PEOPLE THINGS (DPT)

348

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H8*

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Book Reviewer
Broadcast Journalist
Columnist
Correspondent
Investigative Reporter
Journalist
Network Reporter
News Analyst
News Commentator
Newspaper Critic
Reporter
Researcher, Radio or Television
Television News Anchorperson

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to collect local, national and international news through interviews, investigations and observations, and to research and report on developments in specialized fields such as medicine, science and technology
- **Verbal ability** to write reviews of literary, musical and other artistic works based on knowledge, judgment and experience
- **Innovative interest** in writing news stories for publication and broadcast; in preparing regular feature columns and stories on specialized topics; in writing editorials and commentaries on topics of current interest; and in expressing the views of publications and broadcasting stations
- **Social interest** in diverting to stimulate public interest in current topics; and in arranging for and conducting interviews as part of research and for radio and television programs
- **Methodical interest** in compiling information to receive, analyze and verify news and other copy for accuracy

Physical Activities

- Vision

2Near vision
- Colour Discrimination

0Not relevant
- Hearing

2Verbal interaction
- Body Position

3Sitting, standing, walking
- Limb Co-ordination

1Upper limb co-ordination
- Strength

1Limited

Environmental Conditions

- Location

L1Regulated inside climate

L3Outside
- Hazards

H8*Dangerous locations

Employment Requirements

- Education/Training

6, 7
- A university degree or college diploma in journalism or a related field is usually required.

Workplaces/Employers

- Free-lance
- Magazines
- Newspapers
- Radio stations
- Television networks and stations

Similar Occupations Classified Elsewhere

- Announcers and Other Broadcasters (5231)
- Editors (5122)
- Writers (5121)
- Photojournalists (in 5221 Photographers)

Remarks

- Journalists may specialize in print or non-print media, in particular issues, such as political affairs or entertainment news, or in a particular geographic area.
- *Environmental Conditions
- For some occupations in this group, Hazards H8 (Dangerous locations) may also apply.

5124 Professional Occupations in Public Relations and Communications

Professional Occupations in Public Relations and Communications include specialists who develop and implement communication strategies and information programs, publicize activities and events, and maintain media relations on behalf of businesses, governments and other organizations.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	3	4	4	3	4	4	4

INTERESTS

IMS

DATA PEOPLE THINGS (DPT)

158

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Communications Officer
Communications Specialist
Fund-Raising Consultant
Information Officer
Media Co-ordinator
Media Relations Officer
Museum Educator
Press Secretary
Public Affairs Officer
Public Relations Consultant
Publicist
Publicity Agent

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to develop, implement and evaluate communications strategies and programs designed to inform clients, employees and the general public of initiatives and policies of businesses, governments and other organizations
- **Verbal ability** to prepare and deliver educational and publicity programs to increase awareness of museums, galleries and other tourist attractions, and to act as spokesperson for an organization and answer written and oral inquiries
- **Innovative interest** in co-ordinating information to prepare and oversee preparation of reports, briefs, bibliographies and speeches, presentations and press releases, and also to develop and organize workshops, meetings, ceremonies and other events for publicity, fund-raising and information purposes
- **Methodical interest** in gathering, researching and editing material for internal and external audiences, in arranging interviews and news conferences, and in assisting in the preparation of brochures, reports, newsletters and other materials
- **Social interest** in persuading to publicize activities and events; and in initiating and maintaining contact with the media

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
3	Sitting, standing, walking
Limb Co-ordination	
0	Not relevant
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

- Education/Training
6, 7
- A university degree or college diploma in public relations, communications, journalism or a discipline related to a particular subject matter is usually required.

Workplaces/Employers

- Associations
Consulting firms
Corporations
Government
Self-employment
Social agencies and other organizations

Occupational Options

Progression to managerial positions in public relations and communications is possible with additional training and experience.

Similar Occupations Classified Elsewhere

- Advertising specialists (in 1122 *Professional Occupations in Business Services to Management*)
Marketing consultants (in 4163 *Economic Development Officers and Marketing Researchers and Consultants*)
Public relations clerks (in 1453 *Customer Service, Information and Related Clerks*)
Public relations managers (in 0611 *Sales, Marketing and Advertising Managers*)
Writers (5121)

5125.1 Translators

Translators adapt written material from one language to another.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	4	4	4	3	4	4	4

INTERESTS

MID

DATA PEOPLE THINGS (DPT)

288

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8+, R

Examples of Job Titles

Literary Translator

Translator

Translator, Official Languages

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to translate written materials, such as correspondence, reports, legal documents, technical specifications and textbooks, from one language to another while maintaining the content, context and style of the original
- **Verbal ability** to understand and use complex and abstract cultural, political, commercial, technical and scientific concepts and terms expressed in two or more languages
- **Clerical perception** to revise, edit, proofread and check translated material
- **Methodical interest** in transcribing text in formats such as memoranda, reports and letters using knowledge of grammar and terms employed in business, professional, technical and trade organizations
- **Innovative interest** in analyzing information to produce documents that help readers understand the contents of original material
- **Directive interest** in determining the most appropriate adaptation of content from one language to another

Physical Activities

Vision
2 Near vision

Colour Discrimination
0 Not relevant

Hearing
1 Limited

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
8+, R

- A bachelor's degree in translation or a related discipline is required, and specialization in translation at the graduate level is usually required.

- Fluency in three languages is usually required for translators employed by international organizations.
- A translator's certificate issued by the Canadian Translators and Interpreters Council may be required.
- In Quebec, membership in the professional corporation for translators and interpreters is mandatory.

Workplaces/Employers

Government
International organizations
Large private corporations
Media companies
Private interpreting agencies
Private translation agencies
Self-employment

Similar Occupations Classified Elsewhere

Writers (5121)

Language instructors (in 4131 *College and Other Vocational Instructors*)

Linguists (in 4169 *Other Professional Occupations in Social Science*)

Remarks

Translators specialize in a particular language, such as French, English, Russian or Spanish, and may specialize in a particular technical area such as law, medicine or agriculture.

5125.2 Terminologists

Terminologists conduct research required to translate and interpret technical, professional and scientific vocabulary and material.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	4	4	4	3	4	4	4

INTERESTS

MI5

DATA PEOPLE THINGS (DPT)

228

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

8

Examples of Job Titles

Legal Terminologist

Medical Terminologist

Terminologist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conduct documentary and terminological research for the preparation of glossaries, technological files, dictionaries and resource centres
- **Verbal ability** to translate and adapt scientific and technical documents using training in logical and scientific thinking and in technical and professional terminology
- **Clerical perception** to discern detail in text
- **Methodical interest** in consulting dictionaries and other reference sources; may revise translations prepared by others using dictionaries and other references
- **Innovative interest** in analyzing information when conducting documentary and terminological research for the preparation of glossaries of technical and professional terminology
- **Social interest** in providing **consulting** services to translators, interpreters and technical writers preparing legal, scientific and other documents requiring specialized terminologies

Physical Activities

- Vision
- 2 Near vision
- Colour Discrimination
- 0 Not relevant
- Hearing
- 2 Verbal interaction
- Body Position
- 1 Sitting
- Limb Co-ordination
- 0 Not relevant
- Strength
- 1 Limited

Environmental Conditions

- Location
- L1 Regulated inside climate

Employment Requirements

- Education/Training
- 8
- A bachelor's degree in translation or a related discipline is required, and specialization in terminology at the graduate level is usually required.

Workplaces/Employers

- Government
- International organizations
- Large private corporations
- Media companies
- Private interpreting agencies
- Private translation agencies
- Self-employment

Similar Occupations Classified Elsewhere

- Writers (5121)
- Language instructors (in 4131 *College and Other Vocational Instructors*)
- Linguists (in 4169 *Other Professional Occupations in Social Science*)

Remarks

Terminologists specialize in a particular language, such as French, English, Russian or Spanish, and may specialize in a particular technical area such as law, medicine or agriculture.

5125.3 Interpreters

Interpreters translate oral communication, such as speeches, proceedings and dialogue, from one language to another.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	1	4	4	4	3	4	4	4

INTERESTS

MI5

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0*	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 8+, R

Examples of Job Titles

Conference Interpreter

Court Interpreter

Interpreter

Interpreter for the Deaf

Sign Language Interpreter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to interpret oral communication from one language to another either simultaneously (as the speaker speaks) or consecutively (after the speaker speaks)
- **Verbal ability** to interpret language for individuals and groups travelling in Canada and abroad, and to translate sign language to a spoken language and vice versa
- **Methodical interest** in listening to speakers or reading from texts in order to interpret statements made, and in using specific hand shapes, movements and facial expressions to transmit messages to individuals with hearing impairments
- **Innovative interest** in analyzing information when listening to and watching the source language, in processing the content, meaning, context and effect, and in reproducing messages simultaneously or consecutively
- **Social interest in speaking - signalling** to facilitate communication between individuals with differing languages including individuals with hearing and those with hearing impairments; may train other interpreters

Physical Activities

Vision	2	Near vision
Colour Discrimination	0	Not relevant
Hearing	2	Verbal interaction
Body Position	3	Sitting, standing, walking
Limb Co-ordination	0*	Not relevant
Strength	1	Limited

Environmental Conditions

Location	L1	Regulated inside climate
----------	----	--------------------------

Employment Requirements

Education/Training
5+, 6+, 8+, R

- A bachelor's degree in translation or a related discipline is required, and specialization in interpretation at the graduate level is usually required.

- Sign language interpreters require a college or other training program in sign language interpretation.
- Fluency in three languages is usually required for interpreters employed by international organizations.
- An interpreter's certificate issued by the Canadian Translators and Interpreters Council may be required.
- In Quebec, membership in the professional corporation for translators and interpreters is mandatory.

Workplaces/Employers

Government
International organizations
Large private corporations
Media companies
Private interpreting agencies
Private translation agencies
Self-employment

Similar Occupations Classified Elsewhere

Writers (5121)

Language instructors (in 4131 *College and Other Vocational Instructors*)

Linguists (in 4169 *Other Professional Occupations in Social Science*)

Remarks

Interpreters specialize in a particular language, such as French, English, Russian or Spanish, and may specialize in a particular technical area such as law, medicine or agriculture.

*Physical Activities

- For Sign Language Interpreter and Interpreter for the Deaf, Limb Co-ordination 1 (Upper limb co-ordination) also applies.

5131.1 Film, Television and Radio Producers

Film, Television and Radio Producers oversee and control technical and artistic aspects of film, television and radio productions, respectively.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	3	3	4	4	4

INTERESTS

IDS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Filmmaker
Producer
Producer/Director
Radio Producer
Record Producer
Television Producer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, organize and co-ordinate the production of either motion pictures, television shows or radio programs
- **Verbal ability** to engage directors, staff and other production personnel, review scripts, conduct rehearsals and oversee meetings to resolve production problems
- **Numerical ability** to prepare production budgets and to keep costs within budget limits
- **Innovative interest** in determining scope, treatment and scheduling of productions, and in adapting scripts and programs to reach specific audiences
- **Directive interest** in co-ordinating all elements of productions to ensure that quality is maintained and deadlines are met; and in approving productions before release; may direct productions
- **Social interest** in negotiating with administrators, investors, contractors, directors and staff to develop business management policies, finance productions and oversee all aspects of producing films, television programs or radio broadcasts

Physical Activities

Vision

2 Near Vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+

- Producers usually require a university degree or college diploma in the performing arts, broadcasting, theatre production or film studies
and
experience in a technical or production occupation in motion pictures, broadcasting or theatre.
- Demonstrated creative ability is required for all occupations in this group.

Workplaces/Employers

Broadcast departments in advertising companies

Film production companies

Production studios

Radio stations

Television stations

Similar Occupations Classified Elsewhere

Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts (0512)

Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (522)

5131.2 Directors

Directors interpret scripts and direct performances to achieve desired mood, treatment and style of film, television, radio and stage presentations.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	3	3	4	4	4

INTERESTS

IDS

DATA PEOPLE THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Director

Producer/Director

Stage Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to interpret scripts and direct rehearsals and performances to achieve presentations with the desired level of production and performance standards
- **Verbal ability** to confer with production specialists, select cast members and assign parts, explain desired interpretation and delivery of performances, and direct rehearsals
- **Spatial and form perception** to interpret set diagrams, determine layouts, and direct the creation and action of special effects
- **Innovative interest** in studying scripts to determine artistic interpretations; and in co-ordinating the activities of production staff to develop desired effects
- **Directive interest** in co-ordinating the activities of performers and production personnel; and in advising them in the interpretation and delivery of performances, and in conferring with crew and production specialists throughout production and post-production to achieve desired presentations
- **Social interest** in instructing cast members and production personnel to develop and achieve presentations that reflect desired artistic interpretations

Physical Activities

Vision

2 Near Vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3* Outside

Employment Requirements

Education/Training

6+, 7+

- Directors usually require a university degree or college diploma in the performing arts, broadcasting, theatre production or film studies *and* experience in a technical or production occupation in motion pictures, broadcasting or theatre.
- Demonstrated creative ability is required for all occupations in this group.

Workplaces/Employers

Broadcast departments in advertising companies

Film production companies

Production studios

Radio stations

Television stations

Similar Occupations Classified Elsewhere

Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts (0512)

Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (522)

Remarks

*Environmental Conditions

- For this occupation, Location L3 (Outside) may also apply.

5131.3 Choreographers

Choreographers create dances for film, theatre and television performances.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	3	4	3	4	4

INTERESTS

IDS

DATA PEOPLE THINGS (DPT)

028

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	3	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Choreographer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to study musical scores, stories and themes in order to create original dances for film, theatre and television productions
- **Verbal ability** to consult with production personnel concerning artistic interpretations, and to conduct rehearsals
- **Spatial perception** to visualize body movements with regard to space, proper sequencing and timing
- **Motor co-ordination** to make precise movements rhythmically and in dance patterns
- **Innovative interest** in synthesizing information to create dances that convey stories, ideas and moods and harmonize with musical scores
- **Directive interest** in planning and arranging movements of dancers and other performers, evaluating performances during rehearsals and directing dancers to achieve desired interpretations
- **Social interest** in instructing dancers in their performances and artistic interpretations, and by demonstrating movements required to convey themes

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
3 Other sound discrimination

Body Position
4 Other body positions

Limb Co-ordination
2 Multiple limb co-ordination

Strength
2 Light

Environmental Conditions

Location
L1 Regulated inside climate
L3* Outside

Employment Requirements

Education/Training
5+, 6+, 7+

- Choreographers require a university degree or college diploma in dance, or a period of study at a school of dance and extensive training with a dance company.
- Demonstrated creative ability is required for this occupation.

Workplaces/Employers

Dance companies
Film production companies
Self-employment
Theatre companies

Similar Occupations Classified Elsewhere

Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts (0512)

Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (522)

Remarks

*Environmental Conditions

- For this occupation, Location L3 (Outside) may also apply.

5131.4 Art Directors

Art Directors plan, organize and direct the artistic aspects of film, theatre and television productions.

Descriptor Profile

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	3	3	4	4	4

INTERESTS

IDS

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Art Director
Artistic Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to study literature, historical archives and scripts to determine themes and settings in order to plan and organize the artistic aspects of motion pictures, stage productions and television shows
- **Verbal ability** to communicate artistic interpretations to art department personnel
- **Spatial perception** to visualize placement of decor, furnishings, props and artifacts in order to achieve harmonious visual displays and settings that permit free movement of cast members
- **Innovative interest** in co-ordinating information to create artistic interpretations that portray settings for stories and communicate ideas and moods
- **Directive interest** in supervising art department personnel in the design of sets, costumes, furnishings and props; and in directing all aspects of artistic production for performances
- **Social interest** in communicating desired interpretations and instructions to production specialists to achieve quality of artistic presentations

Physical Activities

Vision	
3	Near and far vision
Colour Discrimination	
1	Relevant

Hearing	
2	Verbal interaction

Body Position	
3	Sitting, standing, walking

Limb Co-ordination	
1	Upper limb co-ordination

Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate
L3*	Outside

Employment Requirements

Education/Training
6+, 7+

- Art directors usually require a university degree or college diploma in arts, broadcasting, theatre production or film studies and experience in a technical or production occupation in motion pictures, broadcasting or theatre.
- Demonstrated creative ability is required for this occupation.

Workplaces/Employers

Broadcast departments in advertising companies
Film production companies
Production studios
Television stations

Similar Occupations Classified Elsewhere

Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts (0512)

Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (522)

Remarks

*Environmental Conditions

- For this occupation, Location L3 (Outside) may also apply.

5131.5 Film Editors

Film Editors edit visual aspects of motion picture films.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	3	3	4	4	4

INTERESTS

DOM

DATA PEOPLE THINGS (DPT)

164

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Film Editor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to analyze, evaluate and select scenes to arrange film segments into sequences for continuity and desired visual effects
- **Verbal ability** to study scripts and discuss them with production personnel and directors
- **Spatial perception** to view films and organize the visual effects of incorporated and edited segments to develop dramatic, comedic and thematic aspects of presentations
- **Directive interest in coordinating** and overseeing all aspects of film editing
- **Objective interest in operating** equipment to view, trim and splice film
- **Methodical interest in speaking** with producers, directors and technical personnel to discuss desired thematic effects; and in trimming film segments to specified lengths, and in arranging segments in sequences to achieve story continuity

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
1 Relevant

Hearing
2 Verbal interaction

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
6+, 7+

- Film editors usually require a university degree or college diploma in broadcasting or film studies
and
experience in a technical or production occupation in motion pictures or broadcasting.

- Demonstrated creative ability is required for this occupation.

Workplaces/Employers

Broadcast departments in advertising companies

Film production companies

Production studios

Television stations

Similar Occupations Classified Elsewhere

Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts (0512)

Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (522)

5131.6 Record Producers

Record Producers plan, co-ordinate and oversee all aspects of the production of musical recordings.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	4	4	4

INTERESTS

DMS

DATA PEOPLE THINGS (DPT)

118

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	3	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Producer

Record Producer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, co-ordinate and direct all aspects of the production of musical and other sound recordings, and to evaluate and select recordings for mass production
- **Verbal ability** to arrange auditions and select artists for specific recordings
- **Directive interest** in co-ordinating information on vocal, instrumental and technical effects to direct musicians, singers and other artists during rehearsals and recordings; and in managing technicians involved in duplicating, dubbing and making master copies of recordings
- **Methodical interest** in overseeing rehearsals and timing recordings to ensure they meet specified lengths
- **Social interest** in negotiating contractual agreements between artists, agents and recording companies; and in arranging guest appearances to promote sales of records and tapes

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
3 Other sound discrimination

Body Position
3 Sitting, standing, walking

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate
L3* Outside

Employment Requirements

Education/Training
6+, 7+

- Record producers usually require a university degree or college diploma in music or the recording arts *and* experience in a technical or production occupation in the recording arts.
- Demonstrated creative ability is required for this occupation.

Workplaces/Employers

Record production companies
Sound recording studios

Similar Occupations Classified Elsewhere

Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts (0512)

Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (522)

Remarks

*Environmental Conditions

- For this occupation, Location L3 (Outside) may also apply.

5131.7 Directors of Photography

Directors of Photography oversee and control the technical aspects of filming motion picture, video and television productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	2	3	3	4	4	4

INTERESTS

DIO

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

6+, 7+

Examples of Job Titles

Cinematographer

Director of Photography

Technical Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to co-ordinate and direct the camera work and lighting for films, videos and television broadcasts
- **Verbal ability** to discuss details of scenes with directors and production personnel
- **Spatial perception** to visualize the results of lighting and use of equipment, film and lenses to develop desired visual effects
- **Directive interest in co-ordinating** and overseeing all aspects of camera work and lighting for motion picture, video and television productions
- **Innovative interest** in determining lighting specifications, lenses, camera angles, backgrounds and other elements to achieve desired visual effects
- **Objective interest in supervising** camera operators and other crews in setting up cameras and lighting equipment; and in instructing crews on technical aspects of filming such as focus settings, distances of shots and changes in lighting; may set up and operate cameras to film scenes

Physical Activities

Vision

- 3 Near and far vision

 Colour Discrimination

- 1 Relevant

 Hearing

- 2 Verbal interaction

 Body Position

- 3 Sitting, standing, walking

 Limb Co-ordination

- 1 Upper limb co-ordination

 Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training

6+, 7+

- Directors of photography usually require a university degree or college diploma in film studies or cinematography *and* experience in camera operation or other technical occupation in video or motion picture production.
- Demonstrated creative ability is required for this occupation.

Workplaces/Employers

Broadcast departments in advertising companies

Film production companies

Production studios

Television stations

Similar Occupations Classified Elsewhere

Managers in Publishing, Motion Pictures, Broadcasting and Performing Arts (0512)

Photographers, Graphic Arts Technicians and Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (522)

5132.1 Conductors

Conductors direct bands, orchestras and choirs in performing instrumental and vocal compositions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	3	3	3	2	2	3	3

INTERESTS

DIM

DATA PEOPLE THINGS (DPT)

021

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	3	2	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, D1

EDUCATION/TRAINING

5+, 7+

Examples of Job Titles

Band Leader
Choir Director
Conductor
Musical Director

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply musical theory and techniques of conducting, and to select and interpret musical works
- **Verbal ability** to understand musical terminology and communicate ideas and desired effects to members of bands, orchestras and choirs
- **Form and clerical perception** to recognize musical notes and symbols, and to read complete musical scores
- **Motor co-ordination** to move baton, gesture and use conducting techniques when directing performers
- **Directive interest in instructing** instrumentalists and performers to achieve rendition required; and in leading bands, orchestras and choirs during rehearsals and performances, in auditioning and selecting instrumental and vocal performers, and in supervising and co-ordinating activities of studio and company personnel
- **Innovative interest in synthesizing** information to control balance, rhythm, dynamics and entries of instruments and voices to create interpretation of scores; and in planning and organizing musical productions, and in assigning parts to performers so the meaning and feeling of interpreted scores are expressed
- **Methodical interest in precision working** to memorize musical scores; and in selecting music to accommodate talents of groups, and in positioning performers to obtain balance and harmony of instruments and voices

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
3 Other sound discrimination

Body Position
2 Standing and/or walking

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Discomforts
D1 Noise

Employment Requirements

Education/Training
5+, 7+

- A university degree in music or completion of a program at a music academy or school of music is usually required.
- A period of specialized study related to conducting is usually required.
- Experience as a musician is required.
- Musical and creative talent and ability, as demonstrated by a portfolio of work, are important hiring criteria.

Workplaces/Employers

Academies
Bands
Choirs
Opera companies
Self-employment
Sound recording companies
Symphony orchestras

Similar Occupations Classified Elsewhere

Musicians and Singers (5133)

Producers, Directors, Choreographers and Related Occupations (5131)

Remarks

Conductors usually specialize in a particular type of music such as classical, country, jazz or popular.

5132.2 Composers

Composers create musical works and arrange instrumental and vocal compositions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	3	3	3	2	3	3	3

INTERESTS

IMd

DATA PEOPLE THINGS (DPT)

081

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 7+

Examples of Job Titles

Composer
Lyricist
Song Writer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to create and write musical compositions such as television and film scores, theme music, songs and symphonies
- **Verbal ability** to understand musical terminology, to communicate with musicians and singers, and to write words to accompany music
- **Clerical perception** to read musical scores and translate compositions into standard musical signs and symbols
- **Innovative interest** in **synthesizing** information to invent melodic, harmonic and rhythmic structures in order to express ideas and emotions in musical forms such as symphonies, operas, and film and play scores
- **Methodical interest** in **precision working** to play instruments to assist in composing, arranging and orchestrating music; and in copying compositions to music paper
- **Directive interest** in applying knowledge of harmony, counterpoint, orchestration and musical forms to create compositions and scores; may conduct and teach music

Physical Activities

Vision
2 Near vision

Colour Discrimination
0 Not relevant

Hearing
3 Other sound discrimination

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
5+, 7+

- A university degree in music or completion of a program at a music academy or school of music is usually required.

- A period of specialized study related to composing is usually required.

- Experience as a musician is required.

- Musical and creative talent and ability, as demonstrated by a portfolio of work, are important hiring criteria.

Workplaces/Employers

Academies

Bands

Choirs

Opera companies

Self-employment

Sound recording companies

Symphony orchestras

Occupational Options

Composers often work as arrangers.

Similar Occupations Classified Elsewhere

Musicians and Singers (5133)

Producers, Directors, Choreographers and Related Occupations (5131)

Remarks

Composers usually specialize in a particular type of music such as classical, country, jazz or popular.

5132.3 Arrangers

Arrangers transcribe instrumental and vocal compositions for adaptation or creation of a particular style.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
1	2	3	3	3	2	3	3	3

INTERESTS

DIm

DATA PEOPLE THINGS (DPT)

081

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 7+

Examples of Job Titles

Arranger

Music Adapter

Orchestrator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to adapt and modify musical compositions to convey desired themes and suit particular instrumental and vocal performances
- **Verbal ability** to understand musical terminology and write musical compositions
- **Clerical perception** to annotate original compositions according to selections and to write arrangements on music paper
- **Directive interest** in selecting instruments and voices to obtain desired style and effect by using knowledge of range, characteristics, limitations, key and talents of individual performers, and in transposing music from one medium to another
- **Innovative interest** in **synthesizing** effects of combinations of instruments, voices, harmonic structures, rhythms, tempos and musical dynamics to create arrangements
- **Methodical interest** in **precision working** to play musical instruments to become familiar with compositions to be adapted; and in transcribing compositions and melodic lines to modify them for arrangements

Physical Activities

Vision	2	Near vision
Colour Discrimination	0	Not relevant
Hearing	3	Other sound discrimination
Body Position	1	Sitting
Limb Co-ordination	1	Upper limb co-ordination
Strength	1	Limited

Environmental Conditions

Location	L1	Regulated inside climate
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Employment Requirements

Education/Training	5+, 7+
	■ A university degree in music or completion of a program at a music academy or school of music is usually required.

- A period of specialized study related to arranging is usually required.
- Experience as a musician is required.
- Musical and creative talent and ability, as demonstrated by a portfolio of work, are important hiring criteria.

Workplaces/Employers

- Academies
- Bands
- Choirs
- Opera companies
- Self-employment
- Sound recording companies
- Symphony orchestras

Occupational Options

Composers often work as arrangers.

Similar Occupations Classified Elsewhere

Musicians and Singers (5133)
Producers, Directors, Choreographers and Related Occupations (5131)

Remarks

Arrangers usually specialize in a particular type of music such as classical, country, jazz or popular.

5133.1 Musicians

Musicians play musical instruments while performing with orchestras, opera companies and popular bands.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	3	3	2	1	2

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

141

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2*	0	3	1*	1*	2

ENVIRONMENTAL CONDITIONS (EC)

L1, D1*

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Accompanist
Church Organist
Guitar Player
Instrumentalist
Musician
Percussionist
Recording Artist
Session Musician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to acquire an extensive background in music, and to understand and apply musical theory and the techniques of playing instruments
- **Verbal ability** to understand musical terminology and communicate with conductors and other musicians
- **Form perception** to recognize musical notes and symbols
- **Motor co-ordination and finger and manual dexterity** to play musical instruments
- **Objective interest in precision working** to play instruments by manipulating keys, bow, valves, strings or other parts of instruments
- **Methodical interest in co-ordinating** information from a musical score to produce notes accurately
- **Innovative interest in diverting** and entertaining audiences as soloists and as members of musical groups

Physical Activities

Vision
2* Near vision
Colour Discrimination
0 Not relevant
Hearing
3 Other sound discrimination
Body Position
1* Sitting
Limb Co-ordination
1* Upper limb co-ordination
Strength
2 Light

Environmental Conditions

Location
L1 Regulated inside climate
Discomforts
D1*Noise

Employment Requirements

- Education/Training
- 5+, 6+, 7+
- Musical training from a university or college or through private instruction is usually required.

- Members of orchestras and other professional classical musicians usually require a university degree in music.
- Musical talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

- Academies
- Concert halls
- Conservatories
- Film studios
- Lounges
- Orchestras
- Opera companies
- Popular bands
- Private homes
- Recording studios
- Television studios
- Theatres

Similar Occupations Classified Elsewhere

- Conductors, Composers and Arrangers (5132)
- Professors of music (in 4121 University Professors)
- School music teachers (in 4141 Secondary School Teachers and 4142 Elementary and Kindergarten Teachers)

Remarks

Musicians usually specialize in specific types of music such as classical, country, jazz, opera or popular music.

- *Physical Activities
- For some occupations in this group, Vision 3 (Near and far vision), Body Position 4 (Other body positions) and Limb Co-ordination 2 (Multiple limb co-ordination) may also apply.
- *Environmental Conditions
- For some occupations in this group, Discomforts D1 (Noise) may also apply.

5133.2 Singers

Singers perform vocal musical arrangements for audiences.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	4	5	3	3	4	4	4

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

148

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2*	0	3	2*	0*	2

ENVIRONMENTAL CONDITIONS (EC)

L1, D1*

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Accompanist
Opera Singer
Recording Artist
Singer
Vocalist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to acquire broad background in music and to understand and apply musical theory and singing techniques
- **Verbal ability** to read lyrics, understand musical terminology, express music in a foreign language and communicate with musicians and other singers
- **Methodical interest** in **co-ordinating** musical information from scores and arrangements to study and rehearse before performances, and to sing as soloists and members of musical groups
- **Innovative interest** in **diverting** and entertaining audiences by singing for stage, films, television and recordings
- **Directive interest** in using own phrasing and special musical arrangements to achieve individual style of vocal delivery

Physical Activities

Vision

2* Near vision

Colour Discrimination

0 Not relevant

Hearing

3 Other sound discrimination

Body Position

2* Standing and/or walking

Limb Co-ordination

0* Not relevant

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Discomforts

D1*Noise

Employment Requirements

Education/Training

5+, 6+, 7+

- Musical training from a university or college or through private instruction is usually required.

- Members of orchestras and other professional singers usually require a university degree in music.

- Musical talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

Academies

Concert halls

Conservatories

Film studios

Lounges

Orchestras

Opera companies

Popular bands

Private homes

Recording studios

Television studios

Theatres

Similar Occupations Classified Elsewhere

Conductors, Composers and Arrangers (5132)

Professors of music (in 4121
University Professors)

School music teachers (in 4141
Secondary School Teachers and 4142
Elementary School and Kindergarten Teachers)

Remarks

Singers usually specialize in specific types of music such as classical, country, jazz, opera or popular music.

***Physical Activities**

- For some occupations in this group, Vision 3 (Near and far vision), Body Position 4 (Other body positions) and Limb Co-ordination 2 (Multiple limb co-ordination) may also apply.

***Environmental Conditions**

- For some occupations in this group, Discomforts D1 (Noise) may also apply.

5133.3 Teachers of Music or Voice

Teachers of vocal and instrumental music give instruction and lessons on music theory, on singing and on playing musical instruments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	3	3	3	3	3	3

INTERESTS

DMi

DATA PEOPLE THINGS (DPT)

121

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	0	3	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, D1*

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Music Teacher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply principles of music theory, and to teach technique and interpretation
- **Verbal ability** to present lessons, communicate musical concepts and to discuss students' progress with them
- **Directive interest** in instructing students in reading music, technique, interpretation and music theory through private and group lessons
- **Methodical interest** in precision working to demonstrate techniques of playing musical instruments, breath control and singing voice; and in assigning exercises for the development of students' musical ability
- **Innovative interest** in co-ordinating programs of study of instrumental music or vocal music according to students' interests and abilities

Physical Activities

Vision	
1	Close visual acuity
Colour Discrimination	
0	Not relevant
Hearing	
3	Other sound discrimination
Body Position	
3	Sitting, standing, walking
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate
Discomforts	
D1*Noise	

Employment Requirements

- Education/Training
5+, 6+, 7+
- Musical training from a university or college or through private instruction is usually required.
 - Musical talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

- Academies
Conservatories
Private homes

Similar Occupations Classified Elsewhere

Conductors, Composers and Arrangers (5132)

Professors of music (in 4121 *University Professors*)

School music teachers (in 4141 *Secondary School Teachers* and 4142 *Elementary School and Kindergarten Teachers*)

Remarks

- *Environmental Conditions
- For some occupations in this group, Discomforts D1 (Noise) may also apply.

5134.1 Dancers

Dancers perform as soloists, with partners and with other dancers as members of dance groups and companies.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	4	2	3	4	2	3	3

INTERESTS

Mid

DATA PEOPLE THINGS (DPT)

048

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	3	4	2	3

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Ballet Dancer

Dancer

Folkloric Dancer

Interpretive Dancer

Tap Dancer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, interpret and apply the principles of body movement, dance forms, routines and techniques
- **Spatial perception** to visualize body movements in relation to space, proper sequence and time, and to relate own position to that of others in ensemble dance performances
- **Motor co-ordination** to perform dances as soloists or as members of groups before live audiences, and for film and television
- **Methodical interest** to practise and rehearse dance routines under instruction to achieve desired interpretation and presentation
- **Innovative interest** in synthesizing information to co-ordinate body movements and facial expressions in synchronization with musical accompaniment; may choreograph own performances
- **Directive interest** in diverting and entertaining audiences through dance performances; and in training and exercising to maintain the required levels of ability and fitness

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 0 Not relevant

Hearing

- 3 Other sound discrimination

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A university degree or college diploma in dance
or
graduation from a private dance school or academy may be required.
- Talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

Ballet and dance companies

Nightclubs and similar establishments

Television and film production companies

Similar Occupations Classified Elsewhere

Choreographers (in 5131 *Producers, Directors, Choreographers and Related Occupations*)

Other Performers (5232)

Remarks

Dancers may specialize in specific types of dance such as ballet, ballroom, folk, jazz or modern.

5134.2 Dance Teachers

Dance Teachers instruct students in techniques of performing ballet and other types of dance.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	4	2	3	4	2	3	3

INTERESTS

DMi

DATA PEOPLE THINGS (DPT)

028

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	3	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Ballet Teacher

Ballroom Dancing Teacher

Dance Instructor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand, interpret and apply the principles of body movements, dance forms and production techniques to teach dance
- **Spatial perception** to demonstrate dance movements and steps according to aesthetic principles
- **Motor co-ordination** to demonstrate body, hand and foot movements to musical accompaniment
- **Directive interest in instructing** dance technique to amateur and professional individuals and groups; and in teaching the techniques, cultural origins and symbolic meanings of native, ethnic and folkloric dances
- **Methodical interest** in preparing dance students for specific auditions and performances, and in teaching recreational dancing lessons such as ballroom dancing
- **Innovative interest** in synthesizing information to conceive artistic interpretation, and to determine the interests and physical abilities of students in order to plan suitable dance programs

Physical Activities

Vision	3	Near and far vision
Colour Discrimination	0	Not relevant
Hearing	3	Other sound discrimination
Body Position	4	Other body positions
Limb Co-ordination	2	Multiple limb co-ordination
Strength	2	Light

Environmental Conditions

Location	L1	Regulated inside climate
----------	----	--------------------------

Employment Requirements

Education/Training
5+, 6+, 7+

- A university degree or college diploma in dance
or
graduation from a private dance school or academy may be required.
- Talent and ability, as demonstrated during an audition, are important hiring criteria.
- Dance teachers usually require experience as dancers.

Workplaces/Employers

Dance academies

Dance schools

Similar Occupations Classified Elsewhere

Choreographers (in 5131 *Producers, Directors, Choreographers and Related Occupations*)

Other Performers (5232)

Remarks

Dance teachers may specialize in specific types of dance such as ballet, ballroom, folk, jazz or modern.

5135.1 Actors

Actors perform roles in motion picture, television, theatre and radio productions to entertain audiences.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	4	3	3	4	4	4	4

INTERESTS

Mld

DATA PEOPLE THINGS (DPT)

048

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	3	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L2*, L3, L4*, H8*, D1*, D5*

EDUCATION/TRAINING

1+, 5+, 6+, 7+

Examples of Job Titles

Actor
Comedian

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to study and rehearse lines, gestures and expressions to interpret roles and develop an understanding of parts
- **Methodical interest** in synthesizing information to develop character roles and memorize lines and cues; and in attending rehearsals, wardrobe fittings and make-up sessions
- **Innovative interest** in diverting audiences by playing roles, singing, dancing and performing comedy acts in motion pictures, television shows, theatre productions, radio dramas, commercials and other productions; may perform in nightclubs alone or as members of comedy troupes
- **Directive interest** in auditioning and rehearsing for roles

Physical Activities

Vision
4 Total visual field

Colour Discrimination
0 Not relevant

Hearing
3 Other sound discrimination

Body Position
4 Other body positions

Limb Co-ordination
2 Multiple limb co-ordination

Strength
2 Light

Environmental Conditions

Location
L1 Regulated inside climate
L2* Unregulated inside climate
L3 Outside
L4* In a vehicle or cab

Hazards
H8* Dangerous locations

Discomforts
D1* Noise
D5* Wetness

Employment Requirements

Education/Training
1+, 5+, 6+, 7+

- Demonstrated ability, based on an audition or previous acting roles, is an important hiring criteria.

- Acting programs are offered at universities, colleges and private acting schools.

Workplaces/Employers

Motion picture production companies

Television production companies

Theatre production companies

Video production companies

Similar Occupations Classified Elsewhere

Announcers and Other Broadcasters (5231)

Dancers (5134)

Musicians and Singers (5133)

Other Performers (5232)

Drama professors (in 4121 *University Professors*)

Remarks

*Environmental Conditions

- For some occupations in this group the following Location, L2 (Unregulated inside climate) and L4 (In a vehicle or cab), Hazards, H8 (Dangerous locations) and Discomforts, D1 (Noise) and D5 (Wetness) may also apply.

5135.2 Acting Teachers

Acting Teachers instruct acting students.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	4	3	3	4	4	4	4

INTERESTS

DMi

DATA PEOPLE THINGS (DPT)

028

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

1+, 5+, 6+, 7+

Examples of Job Titles

Acting Teacher

Drama Coach

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to acquire knowledge about the history of acting and to understand and apply the principles, techniques and theory of acting in order to teach
- **Directive interest** in instructing students in the interpretation of scripts, speech, movement and dramatic theory; and in preparing students for auditions and performances
- **Methodical interest** in coaching performers in creative expression, styles of acting and performing, responses to audiences and other techniques
- **Innovative interest** in synthesizing information to plan and deliver programs of study according to the interests and abilities of students; and in instructing performers in interpretations of roles in dramatic productions

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

1+, 5+, 6+, 7+

- Demonstrated ability, based on previous acting roles, is an important hiring criteria.
- Acting programs are offered at universities, colleges and private acting schools.
- Acting teachers usually require experience as actors.

Workplaces/Employers

Colleges

Private acting schools

Universities

Similar Occupations Classified Elsewhere

*Announcers and Other Broadcasters (5231)**Dancers (5134)**Musicians and Singers (5133)**Other Performers (5232)**Drama professors (in 4121 University Professors)*

5136.1 Painters

Painters create original paintings, drawings, etchings, engravings and other artistic works.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	4	2	2	5	2	2	3

INTERESTS

IOm

DATA PEOPLE THINGS (DPT)

081

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*, D3

EDUCATION/TRAINING

1+, 5+, 6+, 7+

Examples of Job Titles

Artist
Ink Sketcher
Painter
Portrait Painter
Silk-Screen Artist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to create drawings, paintings and other original artwork
- **Spatial ability** to visualize and capture the relationships of all elements forming an artistic whole, and to represent three-dimensional objects on two-dimensional surfaces
- **Form perception** to harmonize relationships of line, colour, design and mass into unified, artistic arrangements
- **Motor co-ordination and finger dexterity** to use small paint brushes when working on paper, canvas, wood panel and other surfaces
- **Innovative interest** in synthesizing information to create visual representations of objects, pictures, scenes, abstract designs and similar original compositions; and in employing various media and techniques
- **Objective interest in precision working** with pastels, water colours, charcoal, ink and other materials
- **Methodical interest** in using established methods and techniques to develop creative expressions; and in finishing works of art with protective coatings

Physical Activities

- Vision
- 3 Near and far vision
- Colour Discrimination
- 1 Relevant
- Hearing
- 1 Limited
- Body Position
- 1 Sitting
- Limb Co-ordination
- 1 Upper limb co-ordination
- Strength
- 1 Limited

Environmental Conditions

- Location
- L1 Regulated inside climate
 - L3* Outside
- Discomforts
- D3 Odours

Employment Requirements

- Education/Training
- 1+, 5+, 6+, 7+
- Creative ability and talent, as demonstrated by a portfolio of work, are required. Art programs are offered at universities, colleges and private art schools.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

Artisans and Craftspersons (5244)

Graphic Designers and Illustrating Artists (5241)

Remarks

- *Environmental Conditions
- For some occupations in this group, Location L3 (Outside) may also apply.

5136.2 Sculptors

Sculptors create sculptures and other artistic works.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	4	2	2	5	2	2	3

INTERESTS

IOm

DATA PEOPLE THINGS (DPT)

061

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	4	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, H6*, D3*, D4*

EDUCATION/TRAINING

1+, 5+, 6+, 7+

Examples of Job Titles

Sculptor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to create designs for sculptures and determine necessary materials and techniques
- **Spatial ability** to conceptualize sculptures, statues and other three-dimensional works of art
- **Form perception** to select materials of suitable proportions, quality and texture
- **Motor co-ordination and finger dexterity** to use fine chisels, knives and other equipment
- **Innovative interest** in synthesizing ideas to create artistic forms from metal, stone and other materials in order to express ideas, feelings and moods by shaping, carving and sculpting materials such as clay, stone, wood and metal
- **Objective interest in precision working** to carve and shape materials to desired forms using hand and power tools, welding and metalworking equipment, and masonry tools
- **Methodical interest in speaking** with models when directing them to pose; and in using established techniques of sculpting and arranging objects for compositions

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools
- H6* Flying particles, falling objects

Discomforts

- D3* Odours
- D4* Non-toxic dusts

Employment Requirements

Education/Training

- 1+, 5+, 6+, 7+

- Creative ability and talent, as demonstrated by a portfolio of work, are required. Art programs are offered at universities, colleges and private art schools.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

Artisans and Craftspersons (5244)

Graphic Designers and Illustrating Artists (5241)

Remarks

*Environmental Conditions

- For this occupation, the following Hazards H6 (Flying particles, falling objects) and Discomforts D3 (Odours) and D4 (Non-toxic dusts) may also apply.

5136.3 Art Instructors and Teachers

Art Instructors and Teachers teach techniques and methods used in artistic expression to art students.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	4	2	2	4	2	2	3

INTERESTS

DOM

DATA PEOPLE THINGS (DPT)

021

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H3*, H6*, D3*, D4*

EDUCATION/TRAINING

1+, 5+, 6+, 7+

Examples of Job Titles

Art Instructor

Art Teacher

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan programs of study according to the interests and abilities of students, and to analyze students' capabilities and training needs
- **Verbal ability** to prepare and deliver lectures on history and theory of art, and to offer advice, criticism and encouragement
- **Spatial perception** to visualize and depict three-dimensional objects and arrangements and to choose objects for art lessons
- **Form perception** to assess students' work
- **Motor co-ordination and finger dexterity** to manipulate materials when demonstrating techniques
- **Directive interest in synthesizing** information to teach students the techniques and methods of drawing, painting, sculpting and other forms of artistic expression; and in preparing and assigning special exercises, advising on selection of materials to use and grading students' work
- **Objective interest in precision working** to demonstrate use of materials for paintings, ceramics, sculpture and other forms of art
- **Methodical interest in instructing** students; and in providing audio-visual teaching aids and arranging for tours of art galleries, museums and exhibitions of students' work

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3*Equipment, machinery, tools
- H6*Flying particles, falling objects

Discomforts

- D3*Odours
- D4*Non-toxic dusts

Employment Requirements

Education/Training

- 1+, 5+, 6+, 7+

- Creative ability and talent, as demonstrated by a portfolio of work, are required. Art programs are offered at universities, colleges and private art schools.
- Art instructors and teachers may be required to have a university degree or college diploma in a field related to art.

Workplaces/Employers

Colleges

Private art schools

Self-employment

Universities

Similar Occupations Classified Elsewhere

Artisans and Craftspersons (5244)

Graphic Designers and Illustrating Artists (5241)

Remarks

*Environmental Conditions

- For this occupation the following Hazards, H3 (Equipment, machinery, tools) and H6 (Flying particles, falling objects) and Discomforts, D3 (Odours) and D4 (Non-toxic dusts) may also apply.

5211 Library and Archive Technicians and Assistants

Library and Archive Technicians and Assistants assist users in gaining access to library and archival resources, assist librarians and archivists in cataloguing new acquisitions and conduct reference searches.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	2	4	4	4

INTERESTS

SMi

DATA PEOPLE THINGS (DPT)

374

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	3	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6, 7

Examples of Job Titles

Archive Assistant
Archive Technician
Circulation Assistant
Library Assistant
Library Technician
Reference Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the principles and methods of cataloguing and classifying books, documents and other archival or library materials
- **Clerical perception** to catalogue new library or archive materials under the direction of a librarian or archivist, and to issue library books and other materials for circulation
- **Social interest** in assisting library or archive users in gaining access to books, films, photographs, maps, documents and other library materials or archival records, and in assisting librarians in giving tours and providing children's and other specialized library programs
- **Methodical interest** in operating on-line reference searches, performing manual searches and making interlibrary loans for users; and in receiving library books or archival materials, and in assisting archivists in arranging for safe storage of historical records and documents
- **Innovative interest** in compiling information to assemble and arrange displays of books and other materials for publicity purposes

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6, 7

- A university degree in a social science discipline
or
completion of a college library technician program is usually required.

Workplaces/Employers

Archives

Libraries

Establishments with library or archive services

Similar Occupations Classified Elsewhere*Archivists* (5113)*Librarians* (5111)*Library Clerks* (1451)

5212.1 Conservation and Restoration Technicians

Conservation and Restoration Technicians restore, maintain and store museum and gallery collections and perform other functions in support of curatorial and conservation activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	3	2	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

371

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	2	1	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H1*, H3, D4

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Conservation Technician

Museum Technician

Restoration Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist in the restoration and conservation of artifacts under the direction of conservators
- **Finger dexterity** to repair paintings, artifacts and equipment using oils, paints and brushes, and to fit objects together using hand tools
- **Objective interest in precision working** to restore artifacts as closely as possible to their original state, and to dismantle, restore, replace and reassemble parts on antique machinery and equipment
- **Methodical interest in compiling** information to prepare chemical solutions used in conserving and restoring specimens and artifacts; and in cleaning dirt, paint, varnish and other substances from specimens and artifacts, and in packing and storing specimens and artifacts after treatment
- **Innovative interest in assisting** conservators by performing minor repairs to specimens and artifacts

Physical Activities

Vision
1 Close visual acuity

Colour Discrimination
1 Relevant

Hearing
2 Verbal interaction

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
2 Light

Environmental Conditions

Location
L1 Regulated inside climate

Hazards
H1*Dangerous chemical substances
H3 Equipment, machinery, tools

Discomforts
D4 Non-toxic dusts

Employment Requirements

Education/Training
4, 5, 6

- Completion of a college program in museum studies or conservation technology or other technical or on-the-job training programs related to the work are required.

Workplaces/Employers

Galleries

Museums

Similar Occupations Classified Elsewhere

Assistant curators (in 5112
Conservators and Curators)

Museum exhibit designers (in 5243
Theatre, Fashion, Exhibit and Other Creative Designers)

Remarks

Technical museum and gallery workers may specialize in a specific type of collection.

*Environmental Conditions

- For some occupations in this group, Hazards H1 (Dangerous chemical substances) may also apply.

5212.2 Curatorial Assistants

Curatorial Assistants maintain and store museum and gallery collections and perform other functions in support of curatorial and conservation activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	4	4	3	3	3	3

INTERESTS

MOi

DATA PEOPLE THINGS (DPT)

377

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	4	2	2*

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Curatorial Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to assist in the research, handling and storage of artifacts
- Methodical interest in compiling information such as item identification, condition and research value to document collections of stored artifacts
- Objective interest in handling artifacts to prepare and mount for displays; and in using hand and power tools to fabricate and assemble display environments
- Innovative interest in assisting in research and performing minor repairs to artifacts and specimens

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

4 Other body positions

Limb Co-ordination

2 Multiple limb co-ordination

Strength

2* Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H3 Equipment, machinery, tools

Employment Requirements

Education/Training

4, 5, 6

- Completion of a college program in museum studies or conservation technology
or
other technical or on-the-job training programs related to the work are required.

Workplaces/Employers

Galleries

Museums

Similar Occupations Classified Elsewhere

Assistant curators (in 5112
Conservators and Curators)

Museum exhibit designers (in 5243
Theatre, Fashion, Exhibit and Other Creative Designers)

Remarks

Technical museum and gallery workers may specialize in a specific type of collection.

*Physical Activities

- For this occupation, Strength 3 (Medium) and 4 (Heavy) may also apply.

5212.3 Museum Guides and Interpreters

Museum Guides and Interpreters conduct guided tours and perform other functions in support of curatorial and conservation activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	3	4	4	4	4

INTERESTS

SMd

DATA PEOPLE THINGS (DPT)

568

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	2	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Museum Guide

Museum Interpreter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to acquire, understand and retain information concerning points of interest, historical and other data related to museum tours
- Verbal ability to describe points of interest and historical and other information concerning exhibits
- Social interest in speaking with people to answer inquiries and provide information
- Methodical interest in copying information when collecting tour tickets and fees; and in conducting successive tours
- Directive interest in conducting tours of museum and gallery exhibitions and displays

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

2 Standing and/or walking

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6

- Completion of a college program in museum studies or conservation technology or other technical or on-the-job training programs related to the work are required.

Workplaces/Employers

Galleries

Museums

Similar Occupations Classified Elsewhere

Assistant curators (in 5112
Conservators and Curators)Museum exhibit designers (in 5243
Theatre, Fashion, Exhibit and Other Creative Designers)

Remarks

Technical museum and gallery workers may specialize in a specific type of collection.

5212.4 Museum Extension Officers

Museum Extension Officers plan and co-ordinate displays and perform other functions in support of curatorial and conservation activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	3	3	3	3	4	4	4

INTERESTS

Mld

DATA PEOPLE THINGS (DPT)

168

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Museum Extension Officer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to assist with planning and development of travelling exhibitions and special events
- **Verbal ability** to maintain communications with other institutions, organizations and centers for distribution of exhibits
- **Methodical interest** in making arrangements for acquiring travelling exhibits from other institutions
- **Innovative interest** in co-ordinating information to develop requirements and objectives for travelling exhibits in association with curators and designers, and to develop themes and related interpretative material for travelling exhibits
- **Directive interest** in speaking with others to oversee production and scheduling of travelling exhibits; and in planning and co-ordinating production of exhibits, related public programming and exhibition schedules

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4, 5, 6

- Completion of a college program in museum studies or conservation technology or other technical or on-the-job training programs related to the work are required.

Workplaces/Employers

Galleries

Museums

Similar Occupations Classified Elsewhere

Assistant curators (in 5112
Conservators and Curators)

Museum exhibit designers (in 5243
Theatre, Fashion, Exhibit and Other Creative Designers)

Remarks

Technical museum and gallery workers may specialize in a specific type of collection.

5212.5 Museum Registrars and Cataloguers

Museum Registrars and Cataloguers classify and catalogue museum and gallery artifacts, maintain and store museum and gallery collections and perform other functions in support of curatorial and conservation activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	2	3	4	4	3	4	4	4

INTERESTS

MDo

DATA PEOPLE THINGS (DPT)

337

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6, 7

Examples of Job Titles

Museum Cataloguer

Museum Registrar

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to classify and assign registration numbers to artifacts, and to conduct research to document objects
- Methodical interest in compiling information on items in museum and gallery collections; and in numbering and recording items acquired for collections
- Directive interest in supervising the activities of workers engaged in numbering, cataloguing and preparing files
- Objective interest in handling, storing and preparing artifacts for shipping

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 4, 5, 6, 7

- Registrars and cataloguers may require a university degree in a field related to museum and gallery work.

Workplaces/Employers

Galleries

Museums

Similar Occupations Classified Elsewhere

Assistant curators (in 5112
Conservators and Curators)

Museum exhibit designers (in 5243
Theatre, Fashion, Exhibit and Other Creative Designers)

Remarks

Technical museum and gallery workers may specialize in a specific type of collection.

5212.6 Preparators

Preparators construct and install exhibits and displays and perform other functions in support of curatorial and conservation activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

381

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	4	2	2*

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Preparator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to construct, arrange and prepare museum and art gallery exhibits
- **Spatial perception** to construct scale models and make castings and moulds of artifacts for display purposes
- **Objective interest in precision working** to construct exhibit furnishings, displays and dioramas, and to build models and install artifacts in displays
- **Methodical interest in compiling** information to receive, ship, pack and unpack objects and exhibits; and in preparing artifacts for storage and shipping
- **Innovative interest** in designing exhibit furnishings, display cases and display areas

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 2* Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

- 4, 5, 6

- Completion of a college program in museum studies or conservation technology
or
other technical or on-the-job training programs related to the work are required.

Workplaces/Employers

Galleries

Museums

Similar Occupations Classified Elsewhere

Assistant curators (in 5112
Conservators and Curators)

Museum exhibit designers (in 5243
Theatre, Fashion, Exhibit and Other Creative Designers)

Remarks

Technical museum and gallery workers may specialize in a specific type of collection.

*Physical Activities

- For this occupation, Strength 3 (Medium) and 4 (Heavy) may also apply.

5212.7 Picture Framers

Picture Framers frame artwork and perform other functions in support of curatorial and conservation activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	4	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

584

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	4	2	2*

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Picture Framer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to fabricate custom frames, to measure and cut mats, mat enhancements and glass, and to mount paintings, photographs and other artwork
- Objective interest in operating glass cutters, hand tools and other equipment to cut glass to fit frames, to measure and cut mounted pictures, to cut materials such as fabric or paper, and to form bordering mats of specified sizes and widths
- Methodical interest in copying information to make measurements; and in cleaning and placing glass in frames, and in fastening cardboard to fit frames for holding pictures in place
- Innovative interest in fabricating and repairing picture frames

Physical Activities

- Vision
- 2 Near vision
- Colour Discrimination
- 1 Relevant

- Hearing
- 1 Limited

- Body Position
- 4 Other body positions

- Limb Co-ordination
- 2 Multiple limb co-ordination

- Strength
- 2* Light

Environmental Conditions

- Location
- L1 Regulated inside climate
- Hazards
- H3 Equipment, machinery, tools

Employment Requirements

- Education/Training
- 4, 5, 6
- Completion of a college program in museum studies or conservation technology or other technical or on-the-job training programs related to the work are required.

Workplaces/Employers

- Galleries
- Museums
- Retail settings
- Self-employment

Similar Occupations Classified Elsewhere

- Assistant curators (in 5112 *Conservators and Curators*)
- Museum exhibit designers (in 5243 *Theatre, Fashion, Exhibit and Other Creative Designers*)

Remarks

- Technical museum and gallery workers may specialize in a specific type of collection.
- *Physical Activities
- For this occupation, Strength 3 (Medium) and 4 (Heavy) may also apply.

5212.8 Taxidermists

Taxidermists prepare and mount skins of animals and perform other functions in support of curatorial and conservation activities.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	4	3	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	1	4	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, H1, H2, H3, D3

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Taxidermist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to prepare and mount skins of birds and animals for preservation, scientific and display purposes
- **Spatial perception** to visualize how skeletal parts fit together and how finished products will look
- **Form perception** to select and affix representations of teeth, eyes and claws, and to brush fur and feathers to enhance lifelike appearance
- **Objective interest in precision working** to construct realistic body frames from wire and papier-mâché, to model animals in clay, and to remove skins from carcasses with knives, scissors and other tools
- **Methodical interest** in cleaning, preparing, preserving and mounting skins of birds and animals for display
- **Innovative interest in analyzing** information to prepare exhibits with mounted animals and representations of natural surroundings

Physical Activities

Vision

- 1 Close visual acuity

 Colour Discrimination

- 1 Relevant

 Hearing

- 1 Limited

 Body Position

- 4 Other body positions

 Limb Co-ordination

- 1 Upper limb co-ordination

 Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate

 Hazards

- H1 Dangerous chemical substances
H2 Biological agents
H3 Equipment, machinery, tools

 Discomforts

- D3 Odours

Employment Requirements

Education/Training

- 4, 5, 6

- Completion of a college program in museum studies or conservation technology
or
other technical or on-the-job training programs related to the work are required.

Workplaces/Employers

Galleries

Museums

Retail settings

Self-employment

Similar Occupations Classified Elsewhere

Assistant curators (in 5112
Conservators and Curators)

Museum exhibit designers (in 5243
Theatre, Fashion, Exhibit and Other Creative Designers)

Remarks

Technical museum and gallery workers may specialize in a specific type of collection.

5221 Photographers

Photographers operate still cameras to photograph people, events, scenes, materials, products and other subjects.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	4	3	3	3

INTERESTS

IMO

DATA PEOPLE THINGS (DPT)

060

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	1	2	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

2+, 5+, 6+, 7+

Examples of Job Titles

Aerial Photographer
Commercial Photographer
Forensic Photographer
Industrial Photographer
Photographer
Photojournalist
Portrait Photographer
Scientific Photographer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to study requirements of a particular assignment, decide on type of camera, film, lighting and background accessories, and determine picture composition
- **Spatial perception** to visualize a three-dimensional representation of subjects on a two-dimensional plane
- **Form perception** to perceive details in subject to be photographed, and to visualize and use the best arrangement, shade and light for optimum results
- **Innovative interest** in synthesizing information to determine picture composition, technique and special treatment to be used concerning subject to be photographed, and to set up arrangement to conceive artistic or special effect
- **Methodical interest** in speaking to arrange and position subjects; and in loading, exposing and unloading film, and in transporting and setting up equipment at assigned locations
- **Objective interest** in setting up equipment and in making technical adjustments to equipment and photograph subjects; may process exposed film and use airbrush and other techniques to retouch negatives

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 2 Standing and/or walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
L3 Outside

Employment Requirements

Education/Training

2+, 5+, 6+, 7+

- A bachelor's degree in visual arts with specialization in photography
or
completion of specialized training in photography in high school or college
or
extensive on-the-job training under the supervision of a photographer is required.
- Creative and technical ability, as demonstrated by a portfolio of work, are required.

Workplaces/Employers

Government

Magazines

Museums

Newspapers

Photographic studios

Self-employment

Similar Occupations Classified Elsewhere

Film and Video Camera Operators (5222)

Remarks

Photographers may specialize in areas such as portrait photography, commercial photography, scientific photography or photojournalism.

5222 Film and Video Camera Operators

Film and Video Camera Operators operate motion picture and video cameras and related equipment to record news, live events, films, videos and television broadcasts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	2	2	4	3	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

064

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	1	3

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H8*

EDUCATION/TRAINING

5+, 6+

Examples of Job Titles

Assistant Camera Operator

Camera Operator

Electronic News Gathering (ENG)
Camera Operator

Film Camera Operator

Motion Picture Camera Operator

Studio Camera Operator

Television Camera Operator

Video Camera Operator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the principles and techniques used in operating film and video cameras to record news, live events, films, videos and television broadcasts
- **Spatial** and **form perception** to adjust focus, exposure, lighting and other camera settings
- **Objective interest** in **operating** motion picture and video cameras and related equipment, and in attaching lenses, filters and film magazines to cameras
- **Methodical** interest in testing and maintaining equipment, in labelling and recording contents of exposed film, and in completing report sheets
- **Innovative** interest in **synthesizing** information to select and set up camera equipment; and in **speaking** with directors and senior members of camera crews to discuss assignments and determine filming sequences, camera movements and picture composition

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
3 Sitting, standing, walking

Limb Co-ordination
1 Upper limb co-ordination

Strength
3 Medium

Environmental Conditions

Location
L1 Regulated inside climate
L3 Outside

Hazards
H8* Dangerous locations

Employment Requirements

Education/Training
5+, 6+

- Completion of a college or other program in broadcasting, audio-visual technology or a related field *and* experience as a camera assistant are usually required.

Workplaces/Employers

Motion picture production companies

Self-employment

Television networks and stations

Video production companies

Occupational Options

Progression to supervisory positions is possible with experience.

Progression to director of photography positions is possible with additional training and experience.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Photographers (5221)

Camera assistants (in 5227 *Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts*)

Filmmakers and directors of photography (in 5131 *Producers, Directors, Choreographers and Related Occupations*)

Video artists (in 5136 *Painters, Sculptors and Other Visual Artists*)

Video transmission operators (in 5224 *Broadcast Technicians*)

Remarks

*Physical Activities

- For some occupations in this group, Hazards H8 (Dangerous locations) may apply.

5223.1 Animation Painters

Animation Painters produce and assemble artwork, photographs, lettering and other graphic art according to conceptual layouts and specifications.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	3	2	4	3	2	3

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

381

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, D3

EDUCATION/TRAINING

2+, 6, 7

Examples of Job Titles

Animation Painter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to paint and ink individual cells of animated film according to specifications
- **Form perception** to prepare artistic designs, cartoons and other illustrations
- **Finger dexterity** to manipulate small objects such as brushes, pens and pencils
- **Methodical interest** in compiling information to trace and paint drawings for production of animated cartoons
- **Objective interest in precision working** to use a variety of brushes, pens, pencils and other art equipment
- **Innovative interest** in creating and preparing cartoons and other illustrations by sketching and painting; and in developing colour patterns and moods

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
1	Relevant

Hearing	
1	Limited

Body Position	
1	Sitting

Limb Co-ordination	
1	Upper limb co-ordination

Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate
Discomforts	
D3	Odours

Employment Requirements

Education/Training
2+, 6, 7

- A university degree or college diploma in commercial or graphic arts is usually required.
- On-the-job training may replace education for persons with demonstrated technical and artistic skills.

Workplaces/Employers

Advertising businesses
Printing establishments
Publishing firms
Television and film production companies

Occupational Options

Progression to graphic designer positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Graphic Designers and Illustrating Artists (5241)

Desktop publishing specialists
(in 1423 *Typesetters and Related Occupations*)

Graphic arts camera operators
(in 9472 *Camera, Platemaking and Other Pre-Press Occupations*)

5223.2 Copy Stylists

Copy Stylists produce and assemble lettering according to conceptual layouts and specifications

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	4	4

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

384

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2+, 6, 7

Examples of Job Titles

Copy Stylist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to choose type size and face to conform with layout and allocated space of copy to be printed on advertising pages of periodicals and catalogues
- **Methodical interest** in compiling information to mark copy for typesetting, indicating type font, leading and style of border; and in forwarding layout to printing department
- **Objective interest** in operating computerized equipment
- **Innovative interest** in estimating space to be occupied in type by copy

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
0	Not relevant

Hearing	
1	Limited

Body Position	
1	Sitting

Limb Co-ordination	
1	Upper limb co-ordination

Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
2+, 6, 7

- A university degree or college diploma in commercial or graphic arts is usually required.
- On-the-job training may replace education for persons with demonstrated technical and artistic skills.

Workplaces/Employers

Advertising businesses
Printing establishments
Publishing firms
Television and film production companies

Occupational Options

Progression to graphic designer positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Graphic Designers and Illustrating Artists (5241)

Desktop publishing specialists
(in 1423 *Typesetters and Related Occupations*)

Graphic arts camera operators
(in 9472 *Camera, Platemaking and Other Pre-Press Occupations*)

5223.3 Paste-Up Artists

Paste-Up Artists produce and assemble artwork, photographs, lettering and other graphic art according to conceptual layouts and specifications, and produce camera-ready designs for printing.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	3	3	4	3	3	3

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

384

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	2	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2+, 6, 7

Examples of Job Titles

Mechanical Artist

Paste-Up Artist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to arrange and mount art elements, photographs and text on paper, according to designers' and artists' layouts, for camera-ready copy
- **Methodical interest** in compiling information to measure and mark paper according to instructions and layout marks, and to prepare type headings to specified sizes
- **Objective interest** in operating equipment to scale and crop art elements, and to prepare rules, borders and other mechanical elements; and in using knives and scissors to cut copy material
- **Innovative interest** in developing and fixing photographs and headings

Physical Activities

Vision
2 Near vision

Colour Discrimination
1 Relevant

Hearing
1 Limited

Body Position
2 Standing and/or walking

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
2+, 6, 7

- A university degree or college diploma in commercial or graphic arts is usually required.
- On-the-job training may replace education for persons with demonstrated technical and artistic skills.

Workplaces/Employers

Advertising businesses
Printing establishments
Publishing firms
Television and film production companies

Occupational Options

Progression to graphic designer positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Graphic Designers and Illustrating Artists (5241)

Desktop publishing specialists
(in 1423 *Typesetters and Related Occupations*)

Graphic arts camera operators
(in 9472 *Camera, Platemaking and Other Pre-Press Occupations*)

5223.4 Sign Painters

Sign Painters produce and assemble artwork, lettering and other graphic art according to conceptual layouts and specifications.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	2	2	4	3	3	3

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

381

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	2	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, D3

EDUCATION/TRAINING

2+, 6, 7

Examples of Job Titles

Sign Painter

Silk-Screen Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to lay out and paint letters, figures and designs for advertisements, billboards and business signs
- **Spatial perception** to determine scale for reproducing design, letters and figures from artists' sketches
- **Form perception** to mix paint according to colour specifications and to match colour keys
- **Methodical interest in compiling** information to draw outline of letters and signs; and in cleaning brushes and spray guns
- **Objective interest in precision working** to use layout instruments and painting equipment; and in applying paint, lacquer and enamel to bulletin boards, walls and other displays
- **Innovative interest** in drawing layout for use in printing letters, figures and designs

Physical Activities

Vision

- 2 Near vision

 Colour Discrimination

- 1 Relevant

 Hearing

- 1 Limited

 Body Position

- 2 Standing and/or walking

 Limb Co-ordination

- 1 Upper limb co-ordination

 Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

 Discomforts

- D3 Odours
-

Employment Requirements

Education/Training

- 2+, 6, 7

- A university degree or college diploma in commercial or graphic arts is usually required.
 - On-the-job training may replace education for persons with demonstrated technical and artistic skills.
-

Workplaces/Employers

Advertising businesses

Printing establishments

Publishing firms

Television and film production companies

Occupational Options

Progression to graphic designer positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Graphic Designers and Illustrating Artists (5241)

Desktop publishing specialists
(in 1423 *Typesetters and Related Occupations*)

Graphic arts camera operators
(in 9472 *Camera, Platemaking and Other Pre-Press Occupations*)

5223.5 Stencil Makers

Stencil Makers produce and assemble artwork according to conceptual layouts and specifications.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	4	4	4	4	3	4	4

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

381

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

2+, 6, 7

Examples of Job Titles

Stencil Maker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to lay out and cut stencils to desired specifications
- **Motor co-ordination** to manipulate tools for laying out and cutting stencils
- **Methodical interest** in compiling information to brush shellac on both sides of paper to stiffen and protect it; and in tacking stencils on frames
- **Objective interest** in precision working to use hand tools and equipment to cut out design letters and numerals, and to construct stencil frames
- **Innovative interest** in drawing design letters and numerals on paper and board; may repair stencils and stencil frames

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

2+, 6, 7

- A university degree or college diploma in commercial or graphic arts is usually required.
- On-the-job training may replace education for persons with demonstrated technical and artistic skills.

Workplaces/Employers

Advertising businesses

Printing establishments

Publishing firms

Television and film production companies

Occupational Options

Progression to graphic designer positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Graphic Designers and Illustrating Artists (5241)

Desktop publishing specialists
(in 1423 *Typesetters and Related Occupations*)

Graphic arts camera operators
(in 9472 *Camera, Platemaking and Other Pre-Press Occupations*)

5223.6 Lettering Artists

Lettering Artists produce and assemble lettering according to conceptual layouts and specifications.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	2	2	4	3	3	3

INTERESTS

MOI

DATA PEOPLE THINGS (DPT)

381

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, D3

EDUCATION/TRAINING

2+, 6, 7

Examples of Job Titles

Animation Painter
Copy Stylist
Lettering Artist
Mechanical Artist
Paste-Up Artist
Sign Painter
Silk-Screen Technician
Stencil Maker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to draw and paint precise lettering for advertisements, books and other printed materials
- **Spatial and form perception** to study order forms and subject matter layout to determine nature and style of lettering required
- **Methodical interest in compiling** information to outline lettering using pencils, rulers, a straight edge and curves
- **Objective interest in precision working** to use lettering pens, inks, brushes and paints to draw and paint forms for reproduction by printing
- **Innovative interest** in designing and preparing decorative lettering for formal documents such as diplomas

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
1	Relevant
Hearing	
1	Limited
Body Position	
1	Sitting
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate
Discomforts	
D3	Odours

Employment Requirements

Education/Training
2+, 6, 7

- A university degree or college diploma in commercial or graphic arts is usually required.
- On-the-job training may replace education for persons with demonstrated technical and artistic skills.

Workplaces/Employers

Advertising businesses
Printing establishments
Publishing firms
Television and film production companies

Occupational Options

Progression to graphic designer positions is possible with experience.

Similar Occupations Classified Elsewhere

Correspondence, Publication and Related Clerks (1452)

Graphic Designers and Illustrating Artists (5241)

Desktop publishing specialists
(in 1423 *Typesetters and Related Occupations*)

Graphic arts camera operators
(in 9472 *Camera, Platemaking and Other Pre-Press Occupations*)

5224 Broadcast Technicians

Broadcast Technicians operate control consoles and other broadcasting equipment to route radio and television broadcasts through transmitters and network lines, and to monitor radio and television broadcasts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

282

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6

Examples of Job Titles

Broadcast Engineer
Broadcast Technician
Broadcast Transmitter Operator
Master Control Room (MCR) Technician
Mobile Broadcast Equipment Operator
Regional Transmitter Technician
Senior MCR Operator
Shortwave Receiving Station Technician
Switcher, Broadcasting
Video Transmission Operator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to monitor broadcast quality of live and taped radio and television programs; may supervise other broadcast technicians
- **Objective interest** in controlling and monitoring broadcasting studio microwave and other transmitting equipment to broadcast and receive signals; and in setting up and operating consoles to pick up feed sources from different locations and to air radio or television programs and commercials
- **Methodical interest** in analyzing information obtained from console meters and other indicators to verify that equipment meets specified standards of operation
- **Innovative interest** in making emergency repairs to equipment and substituting programs in case of signal failure

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

3 Other sound discrimination

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6

- Completion of a college program in broadcasting technology is usually required.

Workplaces/Employers

Radio and television broadcasting networks and stations

Occupational Options

Senior and supervisory positions in this group require experience.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Film and Video Camera Operators (5222)

Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (5226)

5225 Audio and Video Recording Technicians

Audio and Video Recording Technicians operate equipment to record, mix and edit sound, music and videotape for motion pictures, television and radio programs, videos, recordings and live events.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	3	3	4	3	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

382

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	3	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, 5, 6

Examples of Job Titles

Audio Technician
Audio-Visual Technician
Post-Production Technician
Radio Technician
Recording Engineer
Recording Studio Technician
Sound Effects Editor
Sound Engineer
Sound Mixer
Sound Technician
Video and Sound Recorder
Video Recording Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to operate audio equipment to record and edit music, dialogue and sound effects for films, videos, radio and television programs and recordings; may supervise and co-ordinate the work of other audio and video recording technicians
- **Motor co-ordination and finger and manual dexterity** to operate videotape recording and editing equipment to record videos, television programs, concerts and live events, and to edit videotapes after production
- **Objective interest in controlling** audio consoles to mix sound and dubbing machines to play back edited dialogue, music and sound effect tracks
- **Methodical interest in compiling** information for playing back edited sound tracks in synchronization with motion picture films
- **Innovative interest in mixing** music and sound at concerts and live events, and synchronizing edited dialogue, music and sound-effect tracks from different sources

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 3 Other sound discrimination

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

- 4, 5, 6

- Completion of a college or other program in recording engineering, audio-visual technology or a related field or experience as a recording studio assistant is usually required.

Workplaces/Employers

Film, video and concert production companies

Radio and television networks and stations

Sound recording firms

Occupational Options

Senior occupations in this group, such as recording and sound engineers, require experience.

Similar Occupations Classified Elsewhere

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (5226)

Film editors (in 5131 Producers, Directors, Choreographers and Related Occupations)

5226.1 Floor Directors

Floor Directors co-ordinate and supervise activities for television, radio and motion picture productions, news broadcasts, theatre and stage productions, and other live and recorded productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	3	3	4	4

INTERESTS

DMo

DATA PEOPLE THINGS (DPT)

168

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	2	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+

Examples of Job Titles

Assistant Director

Floor Director

Program Co-ordinator, Broadcasting

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, direct and co-ordinate program departments of radio and television stations
- **Directive interest** in co-ordinating activities of camera operators and other technical staff; and in approving budgets for departments, in selecting types of programs, in determining length of programs, and in directing personnel activities such as hiring and training staff
- **Methodical interest** in signalling to cue announcers, actors and performers during news broadcasts and television program tapings
- **Objective interest** in planning and arranging technical requirements of production and broadcast facilities

Physical Activities

Vision	
3	Near and far vision
Colour Discrimination	
0	Not relevant
Hearing	
2	Verbal interaction
Body Position	
2	Standing and/or walking
Limb Co-ordination	
1	Upper limb co-ordination
Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

- Education/Training
6+
- Completion of a college program in broadcasting, theatre arts or a related field
and
several years of experience in a related support or assisting occupation in motion pictures, broadcasting or the performing arts are required.

Workplaces/Employers

- Motion picture and video production companies
- Recording studios
- Television and radio stations and networks
- Theatre and stage companies

Occupational Options

There may be an overlap in duties among occupations in the 5226 group, depending on the size of the production or broadcasting studio.

Similar Occupations Classified Elsewhere

- Audio and Video Recording Technicians (5225)*
- Broadcast Technicians (5224)*
- Film and Video Camera Operators (5222)*
- Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts (5227)*
- Lighting designers (in 5243 Theatre, Fashion, Exhibit and Other Creative Designers)*

5226.2 Key Grips

Key Grips supervise and co-ordinate for television and motion picture productions, news broadcasts, theatre and stage productions, and other live productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	4	4	4

INTERESTS

DMo

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Key Grip
Stage Manager

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan, organize, supervise and co-ordinate activities of stage crews in the production of theatrical performances
- **Directive interest** in supervising grips, gaffers and stagehands who rig, place, move and dismantle lights, sets, backdrops, scenery and other stage equipment
- **Methodical interest** in co-ordinating information to interpret stage-set diagrams and determine layouts; and in reading annotated scripts during performances to cue for curtain, lights, properties and sound effects
- **Objective interest** in overseeing activities of stage crews engaged in placing scenery and other stage equipment, and in devising emergency substitutes for stage equipment and properties

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited
-

Environmental Conditions

Location

- L1 Regulated inside climate
- L3 Outside

Employment Requirements

Education/Training

5, 6

- Completion of a college program or other specialized training program in technical production for theatre is required.
-

Workplaces/Employers

Motion picture and video production companies

Recording studios

Television and radio stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among occupations in the 5226 group, depending on the size of the production or broadcasting studio.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts (5227)

Lighting designers (in 5243 Theatre, Fashion, Exhibit and Other Creative Designers)

5226.3 Gaffers and Lighting Technicians

Gaffers and Lighting Technicians perform lighting activities for television and motion picture productions, news broadcasts, theatre and stage productions, and other live productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	3	4	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

361

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	4	2	2*

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H3, H4

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Gaffer

Lighting Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to determine lighting effects during stage performances, television broadcasts and motion picture productions
- **Objective interest in precision working** to position, set up and operate various lighting equipment to illuminate sets, studios and scenes, and to select and position equipment, manually or using a hoist
- **Methodical interest in compiling** information to follow cue sheets and scripts when **signalling** electrical crews to operate lights during filming and broadcasting
- **Innovative interest** in varying intensity of light using a wide range of techniques, and in repairing lighting equipment

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
1 Relevant

Hearing
2 Verbal interaction

Body Position
4 Other body positions

Limb Co-ordination
2 Multiple limb co-ordination

Strength
2* Light

Environmental Conditions

Location
L1 Regulated inside climate
L3 Outside

Hazards
H3 Equipment, machinery, tools
H4 Electricity

Employment Requirements

Education/Training
5, 6

- Completion of a college program or other specialized training program in technical production for theatre is required.

Workplaces/Employers

Television and radio stations and networks

Recording studios

Motion picture and video production companies

Theatre and stage companies

Occupational Options

There may be an overlap in duties among occupations in the 5226 group, depending on the size of the production or broadcasting studio.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts (5227)

Lighting designers (in 5243 Theatre, Fashion, Exhibit and Other Creative Designers)

Remarks

*Physical Activities

- For some occupations in this group, Strength 3 (Medium) or 4 (Heavy) may also apply.

5226.4 Stunt Co-ordinators and Special Effects Technicians

Stunt Co-ordinators and Special Effects Technicians co-ordinate stunts and special effects for television and motion picture productions, theatre and stage productions, and other live productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	3	4	3	4	3

INTERESTS

IOD

DATA PEOPLE THINGS (DPT)

261

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	1	2	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3, H1, H3, H4, H6, H7, H8, D1, D2, D3, D4, D5

EDUCATION/TRAINING

6+

Examples of Job Titles

Special Effects Technician

Stunt Co-ordinator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design and co-ordinate special effects such as fires, explosions and crashes
- **Spatial perception** to draw plans for contrivances such as towers, conveyors and wiring layouts for the set-up of special effects
- **Innovative interest in analyzing** information to create the illusion of phenomena such as snow, rain, smoke, waves, thunder and impact of projectiles and other effects
- **Objective interest in precision working** with mechanical, chemical and electrical devices to animate incidents and to simulate special effects
- **Directive interest in speaking** to arrange provision of contrivances for the set-up of special effects; and in determining methods to create desired effects

Physical Activities

Vision
4 Total visual field

Colour Discrimination
1 Relevant

Hearing
2 Verbal interaction

Body Position
4 Other body positions

Limb Co-ordination
2 Multiple limb co-ordination

Strength
2 Light

Environmental Conditions

Location
L1 Regulated inside climate
L3 Outside

Hazards
H1 Dangerous chemical substances
H3 Equipment, machinery, tools
H4 Electricity
H6 Flying particles, falling objects
H7 Fire, steam, hot surfaces
H8 Dangerous locations

Discomforts
D1 Noise
D2 Vibration
D3 Odours
D4 Non-toxic dusts
D5 Wetness

Employment Requirements

Education/Training
6+

- Completion of a college program in broadcasting, theatre arts or a related field *and* several years of experience in a related supporting or assisting occupation in motion pictures, broadcasting or the performing arts are required.

Workplaces/Employers

Motion picture and video production companies

Recording studios

Television and radio stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among occupations in the 5226 group, depending on the size of the production or broadcasting studio.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts (5227)

Lighting designers (in 5243 Theatre, Fashion, Exhibit and Other Creative Designers)

5226.5 Make-Up Artists

Make-Up Artists apply make-up for television and motion picture productions, news broadcasts, theatre and stage productions, and other live and recorded productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	2	4	3	3	3

INTERESTS

OMI

DATA PEOPLE THINGS (DPT)

381

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	4	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+

Examples of Job Titles

Make-Up Artist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to apply cosmetic and special effects make-up on actors and other performers, and to ensure artistic unity of make-up with settings and costumes
- **Form perception** to observe details of skin and facial features, sketches, photos and plaster models
- **Objective interest in precision working** to manipulate brushes and other devices used for the care of skin, and to apply cosmetic and special effects make-up on actors and other performers
- **Methodical interest in compiling** information from period files to obtain images of characters to be depicted; and in requisitioning cosmetics and make-up materials
- **Innovative interest** in applying prostheses, cosmetics and make-up to change physical characteristics such as facial features, skin texture, body contours and dimensions, and in producing effects appropriate to characters and situations

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

6+

- Completion of a college program in broadcasting, theatre arts or a related field *and* several years of experience in a related supporting or assisting occupation in motion pictures, broadcasting or the performing arts are required.

Workplaces/Employers

Motion picture and video production companies

Recording studios

Television and radio stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among occupations in the 5226 group, depending on the size of the production or broadcasting studio.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts (5227)

Lighting designers (in 5243 Theatre, Fashion, Exhibit and Other Creative Designers)

5226.6 Wardrobe Supervisors

Wardrobe Supervisors oversee costumes and other clothing for television and motion picture productions, news broadcasts, theatre and stage productions, and other live and recorded productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	4	4	4

INTERESTS

DMo

DATA PEOPLE THINGS (DPT)

138

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+

Examples of Job Titles

Wardrobe Supervisor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to oversee the acquisition and maintenance of wardrobes, and to analyze scripts and research material to determine styles of dress according to period and characters
- **Verbal ability** to confer with directing and production personnel
- **Directive interest** in supervising and co-ordinating the costuming of casts for motion picture, television and stage productions
- **Methodical interest** in co-ordinating information to prepare and issue requisitions and work orders for procurement, production and care of costumes and wardrobe accessories
- **Objective interest** in overseeing the activities of workers engaged in procuring, making, altering and caring for costumes and other wardrobe accessories

Physical Activities

Vision	
2	Near vision
Colour Discrimination	
1	Relevant

Hearing	
2	Verbal interaction

Body Position	
3	Sitting, standing, walking

Limb Co-ordination	
1	Upper limb co-ordination

Strength	
1	Limited

Environmental Conditions

Location	
L1	Regulated inside climate

Employment Requirements

Education/Training
6+

- Completion of a college program in broadcasting, theatre arts or a related field
and
several years of experience in a related supporting or assisting occupation in motion pictures, broadcasting or the performing arts are required.

Workplaces/Employers

Motion picture and video production companies

Recording studios

Television and radio stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among occupations in the 5226 group, depending on the size of the production or broadcasting studio.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts (5227)

Lighting designers (in 5243 Theatre, Fashion, Exhibit and Other Creative Designers)

5226.7 Other Workers in Motion Pictures, Broadcasting and the Performing Arts

Other Workers supervise and perform specific activities for television, radio and motion picture productions, news broadcasts, theatre and stage productions, and other live and recorded productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	4	4	4

INTERESTS

MDS

DATA PEOPLE THINGS (DPT)

368

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+

Examples of Job Titles

Assistant Director

Casting Agent

Stage Manager

Theatre Technician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to prepare television and radio schedules
- **Clerical ability** to maintain talent files to include information such as personality types, specialties, past performances and availability of performers
- **Methodical interest** in compiling information when reading annotated scripts during performances, and in **signalling** cues for curtain, lights, properties and sound effects
- **Directive interest** in auditioning and casting performers for roles, and in scheduling and overseeing rehearsals
- **Social interest** in negotiating with performers and agents to obtain contractual agreement on items such as salaries, fees, program credits, residual payments, performance dates and production schedules

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
3 Sitting, standing, walking

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
6+

- Completion of a college program in broadcasting, theatre arts or a related field
and
several years of experience in a related supporting or assisting occupation in motion pictures, broadcasting or the performing arts are required.

Workplaces/Employers

Motion picture and video production companies

Recording studios

Television and radio stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among occupations in the 5226 group, depending on the size of the production or broadcasting studio.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts (5227)

Lighting designers (in 5243 Theatre, Fashion, Exhibit and Other Creative Designers)

5227.1 Grips

Grips assist technical workers and perform other support duties related to broadcasting and the production of motion pictures and the performing arts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

562

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	4	1	4

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*, H3, H4

EDUCATION/TRAINING

4

Examples of Job Titles

Boom Grip
Camera Crane Operator
Grip
Lighting Assistant
Production Assistant, Broadcasting
Special Effects Assistant
Spotlight Operator

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to set up and operate mobile camera platforms, microphone booms and lighting equipment
- Objective interest in controlling dollies and hand trucks to transport and position equipment, such as cameras, electrical fixtures and props, on stages and motion picture sets; and in erecting structures from stock scaffolding using hand tools
- Methodical interest in copying information to move stage equipment and to build temporary structures to accommodate equipment
- Innovative interest in speaking with production personnel and other workers to assemble and set up stage properties to achieve desired effects

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
1 Relevant

Hearing
2 Verbal interaction

Body Position
4 Other body positions

Limb Co-ordination
1 Upper limb co-ordination

Strength
4 Heavy

Environmental Conditions

Location
L1 Regulated inside climate
L3* Outside

Hazards
H3 Equipment, machinery, tools
H4 Electricity

Employment Requirements

Education/Training
4

- Completion of secondary school is usually required.
- Most occupations in this group require completion of college courses in broadcasting, theatre arts or a related field or a period of on-the-job training.

Workplaces/Employers

Motion picture and video production companies

Television stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among some occupations in the 5227 group, depending on the size of the production or broadcasting studio.

Progression to related technical occupations in motion pictures, broadcasting and the performing arts is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (5226)

Remarks

*Environmental Conditions

- For some occupations in this group, Location L3 (Outside) may also apply.

5227.2 Motion Picture Projectionists

Motion Picture Projectionists show films by operating and maintaining projection equipment.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

684

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	3	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4, S, R

Examples of Job Titles

Motion Picture Projectionist
Projectionist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to prepare films by examining film quality, rewinding films onto reels and marking film reels according to sequences
- Objective interest in operating motion picture projection and sound-reproducing equipment; and in loading film reels onto movie theatre projectors and in adjusting focus, sound levels and other projector and theatre settings
- Methodical interest in comparing information to switch on projectors and audio amplifiers as well as to switch on alternative projectors when special symbols appear on screen to guard continuity of storylines; and in dimming house lights and opening stage curtains according to schedule
- Innovative interest in repairing film in case of breakage, in regulating audio controls to produce desired audio mix and sound levels, and in maintaining projection equipment

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
3 Other sound discrimination

Body Position
1 Sitting

Limb Co-ordination
1 Upper limb co-ordination

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
4, 5, R

- Completion of secondary school is usually required.
- A period of on-the-job training is required.
- Projectionists in Nova Scotia, Quebec, Ontario and Alberta are required to complete a licensed apprenticeship program.
- Projectionists are required to be licensed by their province of employment.

Workplaces/Employers

Movie theatres

Occupational Options

Progression to related technical occupations in motion pictures, broadcasting or the performing arts is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (5226)

5227.3 Props Persons and Set Dressers

Props Persons and Set Dressers assist technical workers and perform other support duties related to broadcasting and the production of motion pictures and the performing arts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	3	4	3	3	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

281

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	4	2	3

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*, H3

EDUCATION/TRAINING

4

Examples of Job Titles

Props Person

Set Dresser

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to research, build and maintain props and other set decorations
- **Spatial perception** to rig and control elements of sets that move and function to depict action
- **Objective interest in precision working** to fabricate props, miniatures and sets from wood, cardboard, plastic, rubber, cloth, metal and other materials using hand tools, and to set up and operate machines and equipment such as saws, lathes and drills
- **Methodical interest** in maintaining props and other set decorations
- **Innovative interest in analyzing** sketches, blueprints and written and oral instructions to determine production requirements and work procedures

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 3 Medium

Environmental Conditions

Location

- L1 Regulated inside climate
L3* Outside

Hazards

- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

4

- Completion of secondary school is usually required.
- Most occupations in this group require completion of college courses in broadcasting, theatre arts or a related field
or
a period of on-the-job training.

Workplaces/Employers

Motion picture and video production companies

Recording studios

Television and radio stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among some occupations in the 5227 group, depending on the size of the production or broadcasting studio.

Progression to related technical occupations in motion pictures, broadcasting or the performing arts is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (5226)

Remarks

*Environmental Conditions

- For some occupations in this group, Location L3 (Outside) may also apply.

5227.4 Script Assistants

Script Assistants help technical workers and perform other support duties related to broadcasting and the production of motion pictures and the performing arts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	4	4	3	4	4	4

INTERESTS

MOs

DATA PEOPLE THINGS (DPT)

577

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*

EDUCATION/TRAINING

4

Examples of Job Titles

Production Assistant, Broadcasting
Prompter
Script Assistant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to keep detailed notes of all actions, positions and camera angles, and to examine scripts and prepare lists of props
- **Verbal ability** to prepare rehearsal call-sheets and prompt members of the cast and guests from scripts during rehearsals and broadcasts
- **Methodical interest in copying** information to verify placement of props, films, slides, title cards and similar items before broadcasts, to record duration of scenes and programs, and to give directions to personnel for sign on and sign off, station breaks and film feature programs
- **Objective interest in handling** stopwatches to time duration of individual scenes and overall programs; and in photographing and dating scenes
- **Social interest in assisting** technical workers; and in distributing scripts to actors, arranging for rehearsal quarters and contacting members of the cast and guests to ensure that make-up has been applied

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

3 Sitting, standing, walking

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3* Outside

Employment Requirements

Education/Training

4

- Completion of secondary school is usually required.
- Most occupations in this group require completion of college courses in broadcasting, theatre arts or a related field
or
a period of on-the-job training.

Workplaces/Employers

Motion picture and video production companies

Recording studios

Television and radio stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among some occupations in the 5227 group, depending on the size of the production or broadcasting studio.

Progression to related technical occupations in motion pictures, broadcasting or the performing arts is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (5226)

Remarks

*Environmental Conditions

- For some occupations in this group, Location L3 (Outside) may also apply.

5227.5 Stagehands and Riggers

Stagehands and Riggers assist technical workers and perform other support duties related to broadcasting and the production of motion pictures and the performing arts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	5	3	4	5	3	4	3

INTERESTS

OMi

DATA PEOPLE THINGS (DPT)

684

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	4	2	3*

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*, H3

EDUCATION/TRAINING

4

Examples of Job Titles

Rigger

Set Builder

Stagehand

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to determine set specifications and discuss set-design requirements with production personnel
- **Motor co-ordination** to climb ladders and scaffolding
- **Manual dexterity** to use equipment for transporting and positioning stage fixtures and props
- **Objective interest in operating** dollies and handcarts; and in constructing wooden framework for scenery and set components, installing rigging to raise, lower and support stage equipment and erecting sets for theatrical productions
- **Methodical interest in comparing** information to change scenery between acts and scenes according to scripts; and in rigging, placing, moving and dismantling sets, backdrops, scenery and other stage equipment
- **Innovative interest** in testing apparatus to ensure proper functioning and safety

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 3* Medium

Environmental Conditions

Location

- L1 Regulated inside climate
- L3* Outside

Hazards

- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

4

- Completion of secondary school is usually required.
- Most occupations in this group require completion of college courses in broadcasting, theatre arts or a related field or a period of on-the-job training.

Workplaces/Employers

Motion picture and video production companies

Television stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among some occupations in the 5227 group, depending on the size of the production or broadcasting studio.

Progression to related technical occupations in motion pictures, broadcasting or the performing arts is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (5226)

Remarks

*Physical Activities

- For some occupations in this group, Strength 4 (Heavy) may also apply.

*Environmental Conditions

- For some occupations in this group, Location L3 (Outside) may also apply.

5227.6 Wardrobe Attendants

Wardrobe Attendants perform support duties related to broadcasting and the production of motion pictures and the performing arts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	4	4	3	4	3	3	3

INTERESTS

MOs

DATA PEOPLE THINGS (DPT)

677

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	4	2	2*

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*, H3

EDUCATION/TRAINING

4

Examples of Job Titles

Wardrobe Attendant

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to care for costumes and wardrobe accessories of theatrical, television and motion picture production casts
- **Motor co-ordination and finger and manual dexterity** to help cast members put on complicated costumes to facilitate quick changes
- **Methodical interest** in **comparing** information for arranging costumes on dress racks in stage appearance sequences; and in cleaning, maintaining, transporting and storing costumes
- **Objective interest in handling** wardrobe items, accessories and the equipment to maintain, repair and alter them
- **Social interest in assisting** performers to dress in costumes

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 2* Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L3* Outside

Hazards

- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

4

- Completion of secondary school is usually required.
- Most occupations in this group require completion of college courses in broadcasting, theatre arts or a related field or a period of on-the-job training.

Workplaces/Employers

Motion picture and video production companies

Television stations and networks

Theatre and stage companies

Occupational Options

There may be an overlap in duties among some occupations in the 5227 group, depending on the size of the production or broadcasting studio.

Progression to related technical occupations in motion pictures, broadcasting or the performing arts is possible with additional training or experience.

Similar Occupations Classified Elsewhere

Audio and Video Recording Technicians (5225)

Broadcast Technicians (5224)

Film and Video Camera Operators (5222)

Other Technical Occupations in Motion Pictures, Broadcasting and the Performing Arts (5226)

Remarks

*Physical Activities

- For this occupation, Strength 3 (Medium) may also apply.

*Environmental Conditions

- For this occupation, Location L3 (Outside) may also apply.

5231 Announcers and Other Broadcasters

Announcers and Other Broadcasters read news, sports, weather and commercial messages and host entertainment and information programs for broadcast on radio and television.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	3	4	4	3	4	4	4

INTERESTS

MSI

DATA PEOPLE THINGS (DPT)

347

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+

Examples of Job Titles

Announcer
Broadcaster
Disk Jockey
News Reader
Radio Host/Hostess
Sports Announcer
Talk Show Host/Hostess
Television Host/Hostess
Traffic Reporter
Weather Reporter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to select and introduce music, videos and other entertainment material for broadcasts, and to make commercial and public service announcements
- **Verbal ability** to read news, sports and weather for radio and television; may present own material as well as material prepared by others
- **Methodical interest in handling** music, videos and other entertainment materials for broadcasts
- **Social interest in diverting** audiences by acting as hosts/hostesses and masters of ceremonies, by introducing and interviewing guests and by conducting proceedings of shows and programs
- **Innovative interest in compiling** information by maintaining contact with external sources or by observing traffic from air and land vehicles for the purpose of reporting on traffic conditions; and in using information provided from weather forecasting services for the purpose of reporting on weather conditions

Physical Activities

Vision
2 Near vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
1 Sitting

Limb Co-ordination
0 Not relevant

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate

Employment Requirements

Education/Training
6+

- Completion of a college radio or television arts program is usually required.
- Practical training, such as work at a college radio station, may be required.
- Talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

Radio and television advertising companies

Radio and television stations and networks

Occupational Options

Progression to occupations in journalism is possible for those with an educational background in journalism or a related field.

Similar Occupations Classified Elsewhere

Broadcast journalists who prepare and present their own reports (in 5123 *Journalists*)

Support and Assisting Occupations in Motion Pictures, Broadcasting and the Performing Arts (5227)

5232.1 Buskers

Buskers are entertainers not elsewhere classified who perform in a variety of settings.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	4	3	3	4	3	3	3

INTERESTS

ISo

DATA PEOPLE THINGS (DPT)

147

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	3	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

1+, 5+

Examples of Job Titles

Busker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the basic principles and techniques of creative expression, and to adapt to various roles, popularity trends, styles of performing and the mood of audiences
- **Verbal ability** to communicate expression and emotions effectively
- **Innovative interest in co-ordinating** information to develop creative interpretations and presentations, and to communicate through movement, gestures, music and other types of performance
- **Social interest in diverting** passers-by on sidewalks and in parks with magic tricks, juggling acts, short dramatic works and other entertaining displays
- **Objective interest in handling** objects used as props and in performing magic tricks and juggling acts

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 3 Other sound discrimination

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
L3 Outside

Employment Requirements

Education/Training

- 1+, 5+

- Training for occupations in this group is often obtained under the guidance of a practitioner.
- Talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

Advertising companies

Circuses

Nightclubs

Production companies

Self-employment

Street, park and mall locations

Theatres

Occupational Options

There is little mobility among the different occupations in the 5232 group.

Similar Occupations Classified Elsewhere

Actors (5135)

Dancers (5134)

Musicians and Singers (5133)

5232.2 Circus Performers

Circus Performers are entertainers not elsewhere classified who perform in circus acts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	5	3	3	3

INTERESTS

ISo

DATA PEOPLE THINGS (DPT)

144

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	3	4	2	3*

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

1+, 5+

Examples of Job Titles

Acrobat
Circus Performer
Clown

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to perform antics, tricks, original and stock comedy routines, and acrobatic acts to entertain audiences
- Innovative interest in co-ordinating information to devise acrobatic routines, comedic antics and other acts
- Social interest in diverting and entertaining audiences
- Objective interest in operating equipment and using objects as props to perform routines and acts

Physical Activities

Vision

4 Total visual field

Colour Discrimination

0 Not relevant

Hearing

3 Other sound discrimination

Body Position

4 Other body positions

Limb Co-ordination

2 Multiple limb co-ordination

Strength

3* Medium

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

1+, 5+

- Circus performers and acrobats may require a period of study at a circus school.
- Talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

Advertising companies

Circuses

Nightclubs

Production companies

Self-employment

Theatres

Occupational Options

There is little mobility among the different occupations in the 5232 group.

Similar Occupations Classified Elsewhere

*Actors (5135)**Dancers (5134)**Musicians and Singers (5133)*

Remarks

*Physical Activities

- For some occupations in this group, Strength 4 (Heavy) may apply.

5232.3 Magicians and Illusionists

Magicians and Illusionists are entertainers not elsewhere classified who perform magic acts and illusions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	5	2	2	2

INTERESTS

ISo

DATA PEOPLE THINGS (DPT)

144

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	3	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

1+, 5+

Examples of Job Titles

Magician

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- General learning ability to perform sleight-of-hand tricks, disappearing acts and other acts of illusion
- Motor co-ordination, finger and manual dexterity to perform original and stock tricks to mystify audiences using props such as playing cards, cigarettes and other items
- Innovative interest in co-ordinating information to create mystifying acts to entertain audiences
- Social interest in diverting and entertaining audiences by involving them in magic acts
- Objective interest in manipulating objects such as ropes, handkerchiefs and hoops; and in using small animals to perform magic tricks and acts

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 0 Not relevant

Hearing

- 3 Other sound discrimination

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 2 Light
-

Environmental Conditions

Location

- L1 Regulated inside climate
L3 Outside
-

Employment Requirements

Education/Training

1+, 5+

- Training for occupations in this group is often obtained under the guidance of a practitioner.
 - Talent and ability, as demonstrated during an audition, are important hiring criteria.
-

Workplaces/Employers

Advertising companies

Circuses

Nightclubs

Production companies

Self-employment

Theatres

Occupational Options

There is little mobility among the different occupations in the 5232 group.

Similar Occupations Classified Elsewhere

Actors (5135)

Dancers (5134)

Musicians and Singers (5133)

5232.4 Models

Models display clothing and merchandise to audiences through a variety of media.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
4	4	5	4	4	5	4	4	4

INTERESTS

SMi

DATA PEOPLE THINGS (DPT)

668

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	4	2	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

4+

Examples of Job Titles

Model

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to display clothing and merchandise in commercials, advertisements and fashion shows, and to pose for artists and photographers
- **Social interest** in speaking with prospective purchasers to provide information about garments, and to perform social functions such as greeting and introducing guests at banquets, luncheons and other events
- **Innovative interest** in posing and modelling by standing, turning and walking to demonstrate garments' features to audiences at fashion shows, private showings and retail establishments
- **Methodical interest** in comparing information to dress in sample and completed garments, apply cosmetics, arrange hair and select complementary accessories

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate
L3 Outside

Employment Requirements

Education/Training

4+

- Completion of modelling courses is usually required for models.
- Talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

Advertising companies

Modelling agencies

Production companies

Self-employment

Occupational Options

There is little mobility among the different occupations in the 5232 group.

Similar Occupations Classified Elsewhere

Actors (5135)

Dancers (5134)

Musicians and Singers (5133)

5232.5 Puppeteers

Puppeteers are performers not elsewhere classified who entertain audiences with puppets.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	2	4	4	2	2	2

INTERESTS

ISo

DATA PEOPLE THINGS (DPT)

144

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	3	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L3*

EDUCATION/TRAINING

1+, 5+

Examples of Job Titles

Puppeteer

Ventriloquist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to create animation in puppets for presentations, and to give illusion of voice to puppets by talking and singing
- **Spatial perception** to direct movement of puppets during performances
- **Manual and finger dexterity** to insert hands into puppets and manipulate them to produce animation
- **Motor co-ordination** to manipulate bars that control puppet movement through strings and wires from positions above and below stage
- **Innovative interest in co-ordinating** information to create puppet programs, original routines, dialogues and adaptations of stock presentations
- **Social interest in diverting** and entertaining audiences by manipulating puppets and marionettes for programs and shows
- **Objective interest in operating** equipment to sew puppet costumes; and in using hand tools to assemble puppets from wire and string, and to carve and shape puppet parts from materials such as wood, plaster, papier-mâché and cloth

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
3 Other sound discrimination

Body Position
4 Other body positions

Limb Co-ordination
2 Multiple limb co-ordination

Strength
2 Light

Environmental Conditions

Location
L1 Regulated inside climate
L3* Outside

Employment Requirements

Education/Training
1+, 5+

- Training for occupations in this group is often obtained under the guidance of a practitioner.
- Talent and ability, as demonstrated during an audition, are important hiring criteria.

Workplaces/Employers

Advertising and other production companies
Circuses
Nightclubs
Self-employment
Theatres

Occupational Options

There is little mobility among the different occupations in the 5232 group.

Similar Occupations Classified Elsewhere

Actors (5135)

Dancers (5134)

Musicians and Singers (5133)

Remarks

*Environmental Conditions

- For these occupations, Location L3 (Outside) may also apply.

5241 Graphic Designers and Illustrating Artists

Graphic Designers and Illustrating Artists conceptualize and produce designs, illustrations, layouts and visual images to communicate information for publications, advertising, films, posters and signs. Graphic Designers and Illustrating Artists who are also supervisors, project managers or consultants are included in this group.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	2	3	2	2	3

INTERESTS

IMS

DATA PEOPLE THINGS (DPT)

021

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4+, 6+, 7+

Examples of Job Titles

Advertising Designer
Animator
Art Director
Commercial Artist
Graphic Artist
Graphic Designer
Illustrator
Layout Designer
Medical Illustrator
Page Designer
Scientific Illustrator
Title Artist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to conceptualize and produce designs, illustrations, layouts and visual images
- **Spatial and form perception** to comprehend forms in space and visualize and depict three-dimensional objects and arrangements on two-dimensional surfaces
- **Motor co-ordination** to produce final designs and illustrations
- **Finger dexterity** to manipulate small objects such as brushes, pens and pencils
- **Innovative interest** in synthesizing information to prepare sketches, photographs and illustrations of subjects to be rendered; and in determining the medium best suited to produce desired visual effects and methods of reproduction
- **Methodical interest** in precision working to prepare specifications for designs; and in estimating costs of materials and time to complete graphic designs and illustrations
- **Social interest** in consulting with clients to establish the nature and content of designs and illustrations for reproduction; and in supervising the production of designs by other graphic designers and graphic arts technicians

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4+, 6+, 7+

- Completion of secondary school is required.
- A university degree in visual arts with specialization in graphic arts, commercial art or photography or completion of a college or other program in graphic arts or commercial art is usually required.

- Experience as a graphic arts technician may be required and may substitute for post-secondary training.
- Creative ability, as demonstrated by a portfolio of work, is required.

Workplaces/Employers

Advertising firms

Establishments with advertising departments

Graphic design firms

Occupational Options

Progression to management positions, such as advertising manager, is possible with experience.

Similar Occupations Classified Elsewhere

*Graphic Arts Technicians (5223)**Interior Designers (5242)**Painters, Sculptors and Other Visual Artists (5136)**Advertising managers (in 0611 Sales, Marketing and Advertising Managers)*

5242 Interior Designers

Interior Designers create and produce esthetic and functional designs for interior spaces in residential, commercial, institutional and industrial buildings.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	2	3	3	3	4

INTERESTS

IMS

DATA PEOPLE THINGS (DPT)

021

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

6+, 7+, R

Examples of Job Titles

Building Space Planner
Interior Design Technician
Interior Designer
Kitchen Designer
Office Space Planner
Project Manager, Interior Design
Retail Space Planner

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to create and produce esthetic and functional designs for interior spaces; may direct site work crews
- **Spatial and form perception** to develop detailed plans and models showing arrangements of walls, dividers, displays, lighting and other fixtures
- **Innovative interest** in synthesizing information to develop decorating plans and advise on selection of colour schemes, floor and wall coverings, furniture and other items
- **Methodical interest in precision working** with equipment to prepare specifications of designs and estimates of costs and materials
- **Social interest in consulting** with clients to determine needs, preferences and purposes of interior spaces

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

6+, 7+, R

- A university degree or college diploma in interior design or architectural design is usually required.
- Candidates must possess creative ability, as demonstrated by a portfolio of work.
- Registration with the interior design association in the province of employment may be required.

Workplaces/Employers

Architectural firms

Construction companies

Interior design firms

Retail establishments

Self-employment

Occupational Options

Specialization in a particular field of interior design is possible through specific university or college training, or through experience.

Similar Occupations Classified Elsewhere

Graphic Designers and Illustrating Artists (5241)

Industrial Designers (2252)

Theatre, Fashion, Exhibit and Other Creative Designers (5243)

Interior decorators (in 6421 Retail Salespersons and Sales Clerks)

Remarks

Interior designers may specialize in designing interiors for residences, offices, hotels, restaurants or retail establishments.

5243.1 Theatre Designers

Theatre Designers create and produce set, costume and lighting designs for film, television, theatre and video productions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	3	4	3	3	3

INTERESTS

IMD

DATA PEOPLE THINGS (DPT)

061

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Costume Designer

Lighting Designer

Set Designer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to read scripts to determine settings, and to study museums and art galleries to be familiar with architecture and decor of locales and periods to be portrayed
- **Spatial perception** to visualize final appearance of costumes, lighting and sets, and to imagine harmonious arrangements of functional and decorative materials and accessories
- **Innovative interest** in synthesizing information to create set, costume and lighting designs to achieve dramatic and decorative effects for theatre, film, video, opera and ballet productions; and in preparing working drawings, creating special stage lighting patterns and selecting colours, decor and accessories
- **Methodical interest in precision working** with tools to construct miniature sets in cardboard, plaster and other materials; and in sketching and painting plans and submitting them to directors and producers for approval
- **Directive interest in speaking** with workers when overseeing construction of sets

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A bachelor's degree in fine arts or visual arts with specialization in theatre design
or
completion of a college or art school program in theatre design is required.
- Creative ability, as demonstrated by a portfolio of work, is required.

Workplaces/Employers

Broadcasting companies

Performing arts companies

Similar Occupations Classified Elsewhere

Graphic Designers and Illustrating Artists (5241)

Industrial Designers (2252)

Interior Designers (5242)

Patternmakers - Textile, Leather and Fur Products (5245)

Diorama maker - museums and galleries (in 5212 Technical Occupations Related to Museums and Galleries)

Remarks

Theatre designers may specialize in costume, lighting or set design.

5243.2 Fashion Designers

Fashion Designers create and produce designs for garments, textiles and accessories.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	2	4	2	2	3

INTERESTS

IMD

DATA PEOPLE THINGS (DPT)

061

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	2	4	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Clothing Designer

Couturier

Fabric Designer

Fashion Designer

Fur Designer

Jewellery Designer

Shoe Designer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the principles and techniques of design to create clothing and accessories for men, women and children
- **Spatial perception** to visualize the final appearance of fashions
- **Form perception** to write specifications for garments and accessories describing construction, colour schemes and types of materials
- **Motor co-ordination and finger dexterity** to use drawing instruments to sketch designs for producing garments and accessories, and to draw patterns to scale from sketched designs
- **Innovative interest** in **synthesizing** information to create designs for clothing, textiles and accessories
- **Methodical interest** in **precision working** with equipment to prepare patterns for manufacture of garments and accessories; and in recording garment specifications on sketches, fitting partially completed garments on customers and models, and marking alterations necessary to achieve correct fit
- **Directive interest** in **speaking** with customers to advise them on fabrics, styles, colours, current fashion trends and suitability of designs

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A bachelor's degree in fine arts or visual arts with specialization in clothing design
or
completion of a college or art school program in clothing design is required.
- Creative ability, as demonstrated by a portfolio of work, is required.

Workplaces/Employers

Clothing and textiles companies

Manufacturing establishments

Self-employment

Similar Occupations Classified Elsewhere

Graphic Designers and Illustrating Artists (5241)

Industrial Designers (2252)

Interior Designers (5242)

Patternmakers - Textile, Leather and Fur Products (5245)

Diorama maker - museums and galleries (in 5212 Technical Occupations Related to Museums and Galleries)

Remarks

Fashion designers may specialize in men's or women's apparel or in different lines such as sportswear, footwear or formal wear.

5243.3 Exhibit Designers

Exhibit designers create and produce designs for displays and exhibits.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
2	3	3	2	3	4	3	3	3

INTERESTS

IMD

DATA PEOPLE THINGS (DPT)

061

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

5+, 6+, 7+

Examples of Job Titles

Museum Exhibit Designer

Window Display Designer

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the principles and techniques of design and decoration to create and set up exhibitions and displays for advertising, publicity and educational purposes
- **Spatial perception** to study sketches and photos to determine colours, shading and perspective, and to visualize arrangements of materials and backgrounds
- **Innovative interest** in synthesizing information to develop new ideas and esthetic and practical solutions to meet customers' requirements; and in planning and developing exhibits and displays for museums, trade shows, conventions, retail spaces and special events
- **Methodical interest** in precision working with drafting instruments, scissors and cardboard to prepare final designs; and in submitting designs to supervisors and clients for approval
- **Directive interest** in speaking to and directing workers who are erecting displays, making working drawings and models of displays, and positioning spotlights, coloured lighting and other illumination; and in evaluating information regarding developments in materials and styles

Physical Activities

Vision

- 3 Near and far vision

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 1 Limited

Environmental Conditions

Location

- L1 Regulated inside climate

Employment Requirements

Education/Training

5+, 6+, 7+

- A bachelor's degree in fine arts or visual arts with specialization in exhibit design
or
completion of a college or art school program in exhibit design is required.
- Creative ability, as demonstrated by a portfolio of work, is required.

Workplaces/Employers

Manufacturing establishments

Museums

Retail businesses

Self-employment

Similar Occupations Classified Elsewhere

Graphic Designers and Illustrating Artists (5241)

Industrial Designers (2252)

Interior Designers (5242)

Patternmakers - Textile, Leather and Fur Products (5245)

Diorama maker - museums and galleries (in 5212 Technical Occupations Related to Museums and Galleries)

5244.1 Carvers

Carvers use manual and artistic skills to design and make ornamental objects and carvings.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	3	2	2	4	2	2	2

INTERESTS

IOM

DATA PEOPLE THINGS (DPT)

081

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	0	1	4	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, D4

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Artisan

Carver

Craftsperson

Totem Pole Carver

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to produce carvings from wood, stone and other materials, and to carve ornamental designs using hand tools and woodworking machines
- **Spatial and form perception** to visualize and understand the relationships of form, balance and other elements in artistic carvings
- **Motor co-ordination** to carve symbols and designs in relief, and to grind hand tools using hones and grinding wheels
- **Manual and finger dexterity** to draw outlines on materials, rough out designs, cut along outlines and carve details using hand tools
- **Innovative interest** in synthesizing information to design and develop carvings from wood, stone and other materials, and to carve ornamental designs and patterns into wood furniture and other objects
- **Objective interest in precision working** with woodworking machines and hand tools such as gouges, knives and chisels to carve details of designs and produce carvings
- **Methodical interest** in smoothing and polishing carved objects using abrasives and rubbing compounds to finish products

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 0 Not relevant

Hearing

- 1 Limited

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools

Discomforts

- D4 Non-toxic dusts

Employment Requirements

Education/Training

5, 6

- Skills are often learned through apprenticeship with a master craftsperson.
- Training programs are offered by artisan guilds, colleges and private studios.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

Jewellers, Watch Repairers and Related Occupations (7344)

Painters, Sculptors and Other Visual Artists (5136)

5244.2 Glass Blowers

Glass Blowers use manual and artistic skills to design and make ornamental and specialty glass objects.

Profile Summary								
APTITUDES								
G	V	N	S	P	Q	K	F	M
3	4	4	2	2	4	2	3	2
INTERESTS								
IOM								
DATA PEOPLE THINGS (DPT)								
081								
PHYSICAL ACTIVITIES (PA)								
V	C	H	B	L	S			
2	1	1	3	1	2			
ENVIRONMENTAL CONDITIONS (EC)								
L1, L2, H3, H7								
EDUCATION/TRAINING								
5, 6								

Examples of Job Titles
Artisan
Craftsperson
Glass Blower

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand glass blowing operations, and to acquire and apply glass-blowing techniques to create ornamental or specialty glass objects
- **Spatial perception** to visualize styles and forms of artistic objects and glass ornaments
- **Form perception** to observe molten glass in melting furnaces to determine readiness for use in production process, and to detect flaws in finished glassware
- **Motor co-ordination** to gather molten glass on the tips of blowpipes, and to blow through pipes to inflate molten glass while rotating pipes manually to prevent sagging in order to attain desired semi-finished, free-form shapes and sizes
- **Innovative interest** in synthesizing information using knowledge of glass characteristics and glass artisan skills to design and create ornamental glass objects
- **Objective interest in precision working** with blowpipes, hand tools and equipment to blow and sculpt semi-finished, free-form glass objects into final forms and proportions
- **Methodical interest** in following a sequence of steps to shape molten glass into semi-finished objects, and to reheat, shape and form individual parts of these objects to achieve final artistic forms

Physical Activities

Vision

- 2 Near vision

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 3 Sitting, standing, walking

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
- L2 Unregulated inside climate

Hazards

- H3 Equipment, machinery, tools
- H7 Fire, steam, hot surfaces

Employment Requirements

Education/Training

5, 6

- Skills are often learned through apprenticeship with a master craftsperson.

- Training programs are offered by artisan guilds, colleges and private studios.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

Jewellers, Watch Repairers and Related Occupations (7344)

Painters, Sculptors and Other Visual Artists (5136)

5244.3 Metal Arts Workers

Metal Arts Workers use manual and artistic skills to design and make ornamental objects, jewellery and other craft objects from metal.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	2	2	4	2	2	2

INTERESTS

IOM

DATA PEOPLE THINGS (DPT)

081

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
1	1	1	1	1	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, H7*

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Artisan

Craftsperson

Metal Arts Worker

Silversmith

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to create designs and develop ornamental objects such as jewellery, utensils and artistic objects from metals
- **Spatial and form perception** to visualize artistic objects and designs made of metal, to detect detail in work pieces, designs and lettering, and to see slight differences in widths and lengths of lines
- **Motor co-ordination** to mount work pieces in holding devices and cut designs using engraving tools
- **Finger and manual dexterity** to sketch designs in coatings applied to metal surfaces, and to mark reference points and outlines using scribes and gravers
- **Innovative interest** in synthesizing information using knowledge of metal characteristics and artisan's skills to design and create jewellery, utensils, implements, wall hangings, artistic objects and craft objects from gold, silver, copper, pewter and other metals
- **Objective interest in precision working** with hand and power tools to cut designs in surfaces of work pieces, to shape metals into desired forms, to solder pieces together, to drill, cut and file settings for jewellery, and to engrave decorative designs and lettering
- **Methodical interest** in computing dimensions of lettering and designs from sketches and drawings, and in marking and scribing layout lines on work pieces; may operate annealing ovens to soften metals

Physical Activities

Vision

- 1 Close visual acuity

Colour Discrimination

- 1 Relevant

Hearing

- 1 Limited

Body Position

- 1 Sitting

Limb Co-ordination

- 1 Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate

Hazards

- H3 Equipment, machinery, tools
- H7* Fire, steam, hot surface

Employment Requirements

Education/Training

5, 6

- Skills are often learned through apprenticeship with a master craftsperson.
- Training programs are offered by artisan guilds, colleges and private studios.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

Jewellers, Watch Repairers and Related Occupations (7344)

Painters, Sculptors and Other Visual Artists (5136)

Remarks

*Environmental Conditions

- For some occupations in this group, Hazards H7 (Fire, steam, hot surfaces) may also apply.

5244.4 Potters

Potters use manual and artistic skills to design and make pottery.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	2	2	4	2	2	2

INTERESTS

IOM

DATA PEOPLE THINGS (DPT)

081

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	2	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, H7, D5

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Artisan

Craftsperson

Potter

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design and create ornamental and functional pottery by shaping clay using moulds and potters' wheels
- **Spatial and form perception** to visualize shapes, styles and dimensions of pottery designs that are to be formed as unique pieces or as models for making casting moulds, and to observe flaws in glazing and imperfections
- **Motor co-ordination and finger and manual dexterity** to position balls of clay in centers of plaster bats secured to potters' wheels and to press on insides and outsides of emerging clay cylinders with hands and fingers to raise and shape pieces to desired forms
- **Innovative interest** in synthesizing information and applying knowledge of clay, production processes and techniques to design and create ornamental and functional earthenware pieces
- **Objective interest in precision working** manually and with potters' wheels, by adjusting speed constantly to conform with changing firmness of clay pieces as they become larger and their walls thinner; and in judging degrees of change in clay pieces by feel
- **Methodical interest** in using rubber scrapers and wet sponges to trim and smooth surfaces, in placing finished pieces on racks to dry, and in glazing pieces and firing them in kilns

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

1 Sitting

Limb Co-ordination

2 Multiple limb co-ordination

Strength

2 Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H3 Equipment, machinery, tools

H7 Fire, steam, hot surfaces

Discomforts

D5 Wetness

Employment Requirements

Education/Training

5, 6

- Skills are often learned through apprenticeship with a master craftsperson.
- Training programs are offered by artisan guilds, colleges and private studios.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

*Jewellers, Watch Repairers and Related Occupations (7344)**Painters, Sculptors and Other Visual Artists (5136)*

5244.5 Stained Glass Artists

Stained Glass Artists use manual and artistic skills to design and make ornamental objects and windows from stained glass.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	2	2	4	2	2	2

INTERESTS

IOM

DATA PEOPLE THINGS (DPT)

081

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	4	1	2*

ENVIRONMENTAL CONDITIONS (EC)

L1, H3, H7

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Artisan

Craftsperson

Stained Glass Artist

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to design and create stained glass for windows, lamp shades and other objects, using knowledge of portraiture, church symbolism, heraldry, ornamental design and the effects of colour, light and shade on glass
- **Spatial perception** to visualize final appearance of products with harmonious arrangement of functional and decorative materials, and to sketch plans and designs
- **Form perception** to observe detail in objects, materials and designs
- **Motor co-ordination and finger and manual dexterity** to cut, paint, fire and assemble pieces of stained glass to create designs for windows, lamp shades and other objects
- **Innovative interest** in synthesizing information and knowledge of production techniques to design and create stained glass for windows and decorative articles; and in creating miniature or model-sized designs with coloured paper for customers' approval
- **Objective interest in precision working** with artists' brushes, powdered colours and equipment to stain and paint pieces of coloured glass, to fire pieces of glass in kilns to harden colours, and to retouch glass between firings
- **Methodical interest** in indicating on designs where glass is to be cut and leaded, and in accenting mosaic designs by marking details and visual effects

Physical Activities

Vision

2 Near vision

Colour Discrimination

1 Relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

2* Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H3 Equipment, machinery, tools

H7 Fire, steam, hot surfaces

Employment Requirements

Education/Training

5, 6

- Skills are often learned through apprenticeship with a master craftsman.
- Training programs are offered by artisan guilds, colleges and private studios.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

*Jewellers, Watch Repairers and Related Occupations (7344)**Painters, Sculptors and Other Visual Artists (5136)*

Remarks

*Physical Activities

- For this occupation, Strength 3 (Medium) may also apply.

5244.6 Stringed Instrument Makers

Stringed Instrument Makers use manual and artistic skills to design and make stringed musical instruments.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	3	2	2	4	2	2	2

INTERESTS

IOM

DATA PEOPLE THINGS (DPT)

081

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	3	4	1	2*

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Artisan

Stringed Instrument Maker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to use hand and power tools, and apply knowledge of wood properties and instrument design to construct stringed instruments
- **Spatial and form perception** to select materials and use templates to lay out parts to be cut
- **Motor co-ordination** to soak and bend wooden strips over forms to shape instrument rims
- **Finger and manual dexterity** to cut and fit frets and install parts, to string instruments, and to pluck bow strings to test tonal quality and make changes to improve tone
- **Innovative interest** in synthesizing information and knowledge of wood properties to design and construct stringed instruments; may repair and restore instruments and bows
- **Objective interest in precision working** with machines to cut, shape, trim and drill wood parts, and to glue parts together using jigs, forms and clamps to form complete instruments
- **Methodical interest** in applying varnishes and lacquers and in buffing instruments to obtain finishes

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

3 Other sound discrimination

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

2* Light

Environmental Conditions

Location

L1 Regulated inside climate

Hazards

H3 Equipment, machinery, tools

Employment Requirements

Education/Training

5, 6

- Skills are often learned through apprenticeship with a master craftsman.
- Training programs are offered by artisan guilds, colleges and private studios.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

*Jewellers, Watch Repairers and Related Occupations (7344)**Painters, Sculptors and Other Visual Artists (5136)*

Remarks

*Physical Activities

- For this occupation, Strength 3 (Medium) may also apply.

5244.7 Weavers

Weavers use manual and artistic skills to design and make rugs, blankets, cloth and other handicrafts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	4	4	2	3	4	2	3	2

INTERESTS

IOM

DATA PEOPLE THINGS (DPT)

084

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	1	1	1	1*	2

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Artisan

Craftsperson

Weaver

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the procedures of spinning and twisting yarns and fibres, and to use looms and pattern charts to weave products
- **Spatial perception** to set up looms according to pattern charts, customers' specifications or created designs to produce cloth and woven articles
- **Motor co-ordination** to move quickly and accurately to prevent and correct defective weaving, and to set up and adjust looms
- **Manual dexterity** to use the hands to thread materials through machine guides, and to install components such as gears, cams and shuttles in looms
- **Innovative interest** in synthesizing information and knowledge of yarn preparation and weaving techniques to create artistic designs in woven objects, and to produce woven articles
- **Objective interest** in operating looms or using the hands to interlace strips of flexible materials such as wool, cotton, silk, grass, bark and rawhide to make baskets, wreaths, wall hangings, clothing, rugs, blankets and other objects
- **Methodical interest** in manipulating and twisting warp strand ends together to prepare for weaving operations, and in counting number of filling and warp threads per square inch to maintain specified weaving patterns

Physical Activities

Vision
2 Near vision

Colour Discrimination
1 Relevant

Hearing
1 Limited

Body Position
1 Sitting

Limb Co-ordination
1* Upper limb co-ordination

Strength
2 Light

Environmental Conditions

Location
L1 Regulated inside climate

Hazards
H3 Equipment, machinery, tools

Employment Requirements

Education/Training
5, 6

- Skills are often learned through apprenticeship with a master craftsperson.
- Training programs are offered by artisan guilds, colleges and private studios.

Workplaces/Employers

Self-employment

Similar Occupations Classified Elsewhere

Fabric-making occupations in manufacturing (in 9442 *Weavers, Knitters and Other Fabric-Making Occupations*)

Remarks

*Physical Activities

- For this occupation, Limb Co-ordination 2 (Multiple limb co-ordination) may also apply.

5244.8 Craft Instructors

Craft Instructors teach manual and artistic skills used to design and make ornamental objects, pottery, stained glass, jewellery, rugs, blankets and other handicrafts.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	2	4	2	3	3	3	3	3

INTERESTS

DMO

DATA PEOPLE THINGS (DPT)

124

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	1	2	3	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1, H3

EDUCATION/TRAINING

5, 6

Examples of Job Titles

Craft Instructor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and convey the principles of design, characteristics of materials and production techniques
- **Verbal ability** to instruct students in craftmaking techniques, methods and procedures
- **Spatial perception** to evaluate the functional and decorative aspects of students' works
- **Directive interest** in instructing and demonstrating craftmaking techniques and production procedures
- **Methodical interest** in co-ordinating information to develop lessons appropriate for students' capabilities, and to gather working materials
- **Objective interest** in operating machinery and equipment, and using scissors, knives, wiring and glues to perform creative and constructive functions with various types of materials

Physical Activities

- Vision
- 3 Near and far vision
- Colour Discrimination
- 1 Relevant

- Hearing
- 2 Verbal interaction

- Body Position
- 3 Sitting, standing, walking

- Limb Co-ordination
- 1 Upper limb co-ordination

- Strength
- 1 Limited

Environmental Conditions

- Location
- L1 Regulated inside climate
- Hazards
- H3 Equipment, machinery, tools

Employment Requirements

Education/Training

5, 6

- Skills are often learned through apprenticeship with a master craftsperson.
- Training programs are offered by artisan guilds, colleges and private studios.

Workplaces/Employers

- Artisan guilds
- Colleges
- Private studios
- Recreational organizations
- Self-employment

Similar Occupations Classified Elsewhere

Jewellers, Watch Repairers and Related Occupations (7344)

Painters, Sculptors and Other Visual Artists (5136)

Fabric-making occupations in manufacturing (in 9442 *Weavers, Knitters and Other Fabric-Making Occupations*)

5245 Patternmakers - Textile, Leather and Fur Products

Patternmakers in this group create master patterns for the production of garments, footwear and other textile, leather and fur products.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	3	2	2	4	2	2	2

INTERESTS

IMO

DATA PEOPLE THINGS (DPT)

381

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
2	0	1	4	1	1

ENVIRONMENTAL CONDITIONS (EC)

L1

EDUCATION/TRAINING

4

Examples of Job Titles

Dress Patternmaker
Embroidery Patternmaker
Fur Garments Patternmaker
Leather Products Patternmaker
Shoe Patternmaker
Textile Products Patternmaker

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to apply the principles and techniques of patternmaking to create master patterns for the production of garments, footwear and other textile, leather and fur products
- **Spatial and form perception** to visualize articles from patterns and to examine sketches, samples of articles and specifications of designs to determine number, size and shape of pattern parts and amounts of cloth required
- **Motor co-ordination** to lay out master patterns on fabrics and cut sample patterns
- **Finger and manual dexterity** to draw, lay out and cut master patterns of products
- **Innovative interest** in creating pattern size variations from master patterns
- **Methodical interest** in compiling information to outline parts of patterns on paper and indicate details such as pockets, pleats and decorative stitching; and in marking size, identification, style and other information on sample patterns
- **Objective interest in precision working** with computer and drafting instruments to create pattern size variations

Physical Activities

Vision

2 Near vision

Colour Discrimination

0 Not relevant

Hearing

1 Limited

Body Position

4 Other body positions

Limb Co-ordination

1 Upper limb co-ordination

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

Employment Requirements

Education/Training

4

- Completion of secondary school is required.
- College courses in design and patternmaking
or
one-to-two years of on-the-job training are required.
- Courses in computer-assisted patternmaking may be required.

Workplaces/Employers

Footwear manufacturers

Garment manufacturers

Leather, fur and textile products
manufacturers

Self-employment

Occupational Options

Progression to supervisory positions is possible with experience.

Similar Occupations Classified Elsewhere

*Supervisors, Fabric, Fur and Leather
Products Manufacturing (9225)*

5251 Athletes

Athletes participate in competitive sports events as amateurs or professionals. They play team sports such as hockey, baseball, football and lacrosse, and compete in individual sports such as skiing, figure skating, boxing and track and field.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	2	3	4	2	2	2

INTERESTS

Mdi

DATA PEOPLE THINGS (DPT)

241

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	2	4	2	3*

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

1+, 5+, R

Examples of Job Titles

Athlete
Baseball Player
Boxer
Figure Skater
Football Player
Golfer
Harness Race Driver
Hockey Player
Jockey
Professional Athlete
Skier
Sprinter
Track Athlete

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to understand and apply the principles of physical fitness and the rules and regulations of a respective sport
- **Spatial ability** to visualize positions in relation to team members and opponents according to pre-game instructions
- **Motor co-ordination** to make rapid, precise movements
- **Finger and manual dexterity** to move fingers, hands and wrists skillfully in order to control equipment
- **Methodical interest** in attending scheduled practices and training sessions to increase effectiveness and to develop stamina
- **Directive interest in precision working** to train under the direction of a coach or trainer to develop the level of ability necessary for competition; and in **diverting** audiences while participating in league, provincial, national and international competitive events
- **Innovative interest in analyzing** performances following competitions to identify weaknesses and strengths and devise new strategies for better performance

Physical Activities

Vision

4 Total visual field

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

4 Other body positions

Limb Co-ordination

2 Multiple limb co-ordination

Strength

3* Medium

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

Employment Requirements

Education/Training

1+, 5+, R

- Demonstrated ability in a particular sport is required.
- Extensive training under the supervision of a coach is required.
- Certification with a particular sports federation may be required.

Workplaces/Employers

Professional teams

Self-employment

Similar Occupations Classified Elsewhere

*Coaches (5252)**Sports Officials and Referees (5253)**Sports instructors (in 5254 Program Leaders and Instructors in Recreation and Sport)*

Remarks

*Physical Activities

- For some occupations in this group, Strength 4 (Heavy) may also apply.

5252.1 Coaches

Coaches prepare and train athletes and teams for competitive events.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	3	3	3

INTERESTS

DSM

DATA PEOPLE THINGS (DPT)

128

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	3	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

5+, R

Examples of Job Titles

Athletics Coach
Coach
Figure Skating Coach
Football Coach
Gymnastics Coach
Hockey Coach
Head Coach
National Team Coach
Swimming Coach
Volleyball Coach

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to identify strengths and weaknesses of athletes and teams; to plan, develop and implement training and practice sessions; and to formulate competitive strategy
- **Verbal ability** to understand and use sports terminology, and to communicate when directing athletes
- **Directive interest** in developing, planning and co-ordinating competitive schedules and programs, in developing game plans and in directing athletes during athletic events
- **Social interest in instructing** athletes; and in nurturing and developing athletes' skills and abilities, and in motivating and preparing athletes and teams for competitive events
- **Methodical interest** in analyzing and evaluating athletic and team performance

Physical Activities

Vision
3 Near and far vision

Colour Discrimination
0 Not relevant

Hearing
2 Verbal interaction

Body Position
3 Sitting, standing, walking

Limb Co-ordination
0 Not relevant

Strength
1 Limited

Environmental Conditions

Location
L1 Regulated inside climate
L3 Outside

Employment Requirements

Education/Training
S+, R

- Completion of the National Coaching Certificate program is usually required for individual and team sport coaches in all sports.
- National Coaching Certificate Level 3 is usually required for provincial coaches.
- National Coaching Certificate Level 4 is required for coaches of national team athletes.
- Experience in, and technical knowledge of, the sport is required.

Workplaces/Employers

National and provincial sports organizations

Professional and amateur sports teams

Self-employment

Sports clubs and universities

Similar Occupations Classified Elsewhere

Athletes (5251)

Program Leaders and Instructors in Recreation and Sport (5254)

Sports Officials and Referees (5253)

Athletic trainers (in 3144 Other Professional Occupations in Therapy and Assessment)

5252.2 Sports Scouts

Sports Scouts identify and recruit athletes for professional sports teams.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	3	3	3

INTERESTS

MSD

DATA PEOPLE THINGS (DPT)

218

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
3	0	2	1	0	1

ENVIRONMENTAL CONDITIONS (EC)

L1, L3

EDUCATION/TRAINING

2+

Examples of Job Titles

Athletics Coach
Coach
Figure Skating Coach
Football Coach
Football Scout
Gymnastics Coach
Head Coach
Hockey Coach
Hockey Scout
National Team Coach
Sports Scout
Swimming Coach
Volleyball Coach

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to identify and recruit developing athletes for professional sports team, and to recognize and evaluate athletic potential in talented individuals
- **Verbal ability** to communicate when negotiating to obtain the services of players
- **Methodical interest** in observing athletes' skills and performance, reviewing their past record, and filing reports on scouting assessments and recommendations with employers
- **Social interest in negotiating** with players and their managers to arrange contracts
- **Directive interest in analyzing** and evaluating athletes' fitness, skills and performance

Physical Activities

Vision

3 Near and far vision

Colour Discrimination

0 Not relevant

Hearing

2 Verbal interaction

Body Position

1 Sitting

Limb Co-ordination

0 Not relevant

Strength

1 Limited

Environmental Conditions

Location

L1 Regulated inside climate

L3 Outside

**Employment
Requirements**

Education/Training

2+

- Experience in, and technical knowledge of, the sport is required.

Workplaces/Employers

Professional sports organizations

**Similar Occupations
Classified Elsewhere**

*Athletes (5251)**Program Leaders and Instructors in
Recreation and Sport (5254)**Sports Officials and Referees (5253)**Athletic trainers (in 3144 Other
Professional Occupations in Therapy
and Assessment)*

5253 Sports Officials and Referees

Sports Officials and Referees enforce rules and regulations governing sporting events, athletic games and sports competitions.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	2	3	4	4	4	4

INTERESTS

Mds

DATA PEOPLE THINGS (DPT)

268

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	1	2	3*	1*	2

ENVIRONMENTAL CONDITIONS (EC)

L1, L2, L3

EDUCATION/TRAINING

S, R

Examples of Job Titles

Athletic Judge

Clerk-of-the-Course

Figure Skating Judge

Goal Judge

Harness Racing Starter

Linesman/woman - Sports

Paddock Judge

Racetrack Timer

Referee

Sports Official

Umpire

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to officiate at sporting events and athletic competitions to maintain standards of play and ensure that players follow game rules
- **Spatial perception** to observe actions of participants and detect infractions of rules
- **Methodical interest in signalling** to start and stop games; and in recording lapsed time during events, in compiling scores and other athletic records, and in verifying credentials of athletes and animals engaged in sports and related special events
- **Directive interest in analyzing** the performance of competitors to award points, impose penalties for infractions and determine results; and in observing and enforcing rules and regulations governing sporting events, athletic games and sports competitions
- **Social interest** in conferring with opposing teams and players when required to settle disputes

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 1 Relevant

Hearing

- 2 Verbal interaction

Body Position

- 3* Sitting, standing, walking

Limb Co-ordination

- 1* Upper limb co-ordination

Strength

- 2 Light

Environmental Conditions

Location

- L1 Regulated inside climate
L2 Unregulated inside climate
L3 Outside

Employment Requirements

Education/Training

5, R

- Sports referees require completion of an officiating program offered by a sport governing agency.
- Sports officials require certification by, and registration with, a sport governing agency or commission.

Workplace/Employers

National, provincial and local sporting commissions

National, provincial and local organizations and leagues

Similar Occupations Classified Elsewhere

Coaches (5252)

Program Leaders and Instructors in Recreation and Sport (5254)

Remarks

*Physical Activities

- For some occupations in this group, **Body Position 4** (Other body positions) and **Limb Co-ordination 2** (Multiple limb co-ordination) may also apply.

5254 Program Leaders and Instructors in Recreation and Sport

Program Leaders and Instructors in Recreation and Sport lead and instruct groups and individuals in recreational, sports, fitness and athletic programs.

Profile Summary

APTITUDES

G	V	N	S	P	Q	K	F	M
3	3	4	3	3	4	3	3	3

INTERESTS

MSi

DATA PEOPLE THINGS (DPT)

124

PHYSICAL ACTIVITIES (PA)

V	C	H	B	L	S
4	0	2	4	2	3*

ENVIRONMENTAL CONDITIONS (EC)

L1, L2*, L3, D5*

EDUCATION/TRAINING

3+, 6+, R

Examples of Job Titles

Aerobics Instructor
 Animator, Recreation and Sport
 Arts and Crafts Leader
 Camp Counsellor
 Fitness Instructor
 Fitness Leader
 Golf Professional
 Lifeguard
 Playground Worker
 Recreation Program Leader
 Riding Instructor
 Ski Instructor
 Ski Patroller
 Swimming Instructor

Descriptor Profile

Main Characteristics

Occupations in this group are characterized by the following aptitudes, interests and worker functions as they relate to main duties:

- **General learning ability** to plan and co-ordinate recreational, athletic-fitness and sports activities, and to understand the social and recreational needs of the community and the role of community services in fulfilling these needs
- **Verbal ability** to communicate lifestyle-awareness information
- **Motor co-ordination** to demonstrate and instruct athletic, fitness and sports activities and techniques
- **Methodical interest in manipulating** and assembling supplies and sports and game equipment; and in monitoring recreational and sports activities to ensure safety and provide emergency and first-aid assistance
- **Social interest in instructing** groups and individuals in arts, crafts and similar activities; and in leading groups and individuals in recreational programs, and in conducting therapeutic recreational and athletic activities
- **Innovative interest in co-ordinating** information to plan recreational, athletic, fitness and sports programs

Physical Activities

Vision

- 4 Total visual field

Colour Discrimination

- 0 Not relevant

Hearing

- 2 Verbal interaction

Body Position

- 4 Other body positions

Limb Co-ordination

- 2 Multiple limb co-ordination

Strength

- 3* Medium

Environmental Conditions

Location

- L1 Regulated inside climate
L2* Unregulated inside climate
L3 Outside

Discomforts

- D5* Wetness

Employment Requirements

Education/Training

3+, 6+, R

- Completion of secondary school education is usually required.
- Completion of a college program in recreation or physical education or extensive experience in a specific recreational or sports program activity is usually required.
- Demonstrated ability in a particular recreational or sports discipline is required.
- Certification is usually required in a specific area of recreational or athletic activity, such as a swimming instructor's certificate or a ski instructor's certificate.

Workplaces/Employers

Community centers

Sports and fitness clubs

Similar Occupations Classified Elsewhere

Recreation and Sports Program and Service Directors (0513)

Recreation and sports program supervisors (in 4167 *Recreation and Sports Program Supervisors and Consultants*)

Remarks

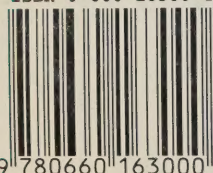
*Physical Activities

- For some occupations in this group, Strength 4 (Heavy) may also apply.

*Environmental Conditions

- For some occupations in this group, Location L2 (Unregulated inside climate) and Discomforts D5 (wetness) may also apply.

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